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ABSTRACT

This collection of lectures focuses on the learning effects of arts education. Presentations are provided for participants to learn the latest research findings in arts education and the development of theories and practice. The insights can be subdivided into learning effects of arts education and assessment of arts education. Presentation titles include: (1) "Visual and Verbal Learning in Art: The Consequences of Developments in Aesthetics for Art Education and the Psychology of Art" (Michael J. Parsons); (2) "What You See and What You Get: Assessment and Its Constituents" (Ronald N. MacGregor); (3) "Developments in Art Theories. Aesthetics, and Their Implications for Curriculum Content and Evaluation in Arts Education" (Willem Elias); (4) "Objects of Assessment: What Aspects of Learning Effects Do We Assess: Products and/or Processes?" (Donna Kay Beattie); (5) "Naive Versus Sophisticated Viewers: The Effects of Learning and Experience on Aesthetic Perception and Appreciation" (Paul Hekkert); (6) "Assessing Learning Effects in the Visual Arts: What Criteria Should Be Used?" (Doug Boughton); (7) "Does Research on Aesthetic Responses to Music Have Any Implications for Arts Education?" (David Hargreaves); (8) "Why Assess?" (Peter Hermans); (9) "Art Learning in Developmental Perspective" (Norman H. Freeman); (10) "They Make Me Play Better than I Do: New Approaches to Evaluating Arts Education Programmes" (Dennie Palmer Wolf and Dana Balick); (11) "Teaching Children To Draw" (Maureen V. Cox); (12) "Effects of Arts Education in Primary and Secondary Education on Cultural Consumption and Socioeconomic Careers in Later Life" (Harry B. G. Ganzeboom); (13) "Children's Talent in Fine Art: Optimisers and Obstructions" (Joan Freeman); (14) "Evaluating Artists in Schools Programmes" (Ken Robinson); (15) "Music in Perspective" (Gert-Jan de Haas); (16) "Arts Education Programmes in Germany" (Konrad Jentzsch); and (17) "Final Comments" (John Steers). (EH)

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Learning effects of arts education

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A collection of lectures given during the international conference
27+28 March 1995
Rotterdam
The Netherlands

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LOKV, NETHERLANDS INSTITUTE FOR ARTS EDUCATION

Art and education is the field in which the LOKV, Netherlands Institute for Arts Education is specialised.
Arts education encompasses learning from, by means of and about the arts. Film/photography/ video, visual arts, dance, theatre, music and literature: the LOKV is actively involved in all fields of the arts, offering support in theory, strategic planning and practice, initiating innovation and providing services for the management, teachers and counsellors of institutions for arts education and training.
The LOKV is the national institute for development and knowledge in the field of arts education.

The staff members select and programme professional art productions for children and young people, develop methodologies and materials, organise festivals, workshops and courses, do research and give advice.
The institute has a comprehensive information and documentation centre.
The LOKV is constantly working on the quality of arts education often in collaboration with other educational and arts educational institutions. It initiates innovation and correlates arts education, the amateur and professional arts. In this way the institute stimulates participation in the arts and culture in the Netherlands.

Art&fact

Learning Effects of Arts Education

A collection of lectures given during the two day international conference Art&fact, 27 and 28 March, 1995 in the World Trade Center Rotterdam, The Netherlands

LOKV, Netherlands Institute for Arts Education, Utrecht 1996

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PREFACE

I am pleased to present you, as conference participants, lecturers and others who are interested, this collection of lectures given during the conference Art&fact. The LOKV, Netherlands Institute for Arts Education organized this international conference on the learning effects in arts education. During the two day conference more than one hundred participants from various countries made a selection from twenty presentations by renowned speakers from the Netherlands and abroad.

The conference Art&fact offered a wealth of insight into research, the development of theories and practice; these insights can basically be subdivided into 'learning effects of arts education' and 'assessment of arts education'. In addition to this collection the LOKV published two special issues of *Katernen Kunsteducatie* in the Dutch language, because the learning effects of arts education have proven to be an important and topical issue for arts education in the Netherlands.

The LOKV hopes that with the organization of this conference and the ensuing publications, it has contributed to the development of research in the field of arts education in the Netherlands and abroad.

I would like to offer a word of thanks to the lecturers who were so kind as to adapt their lectures and to hand them to us for inclusion in this publication.

And last but not least I would like to thank the Theme Coordinators: Mr dr. A.C.M. Dudink, Lecturer University of Amsterdam, Mr dr. F. Haanstra, Senior Researcher SCO-Kohnstamm Institute for Educational Research of the University of Amsterdam, Mrs M. van Hoorn, Staff member Research and Development LOKV, Utrecht, Mr drs. J. Oostwoud Wijdenes, Senior Researcher SCO-Kohnstamm Institute for Educational Research of the University of Amsterdam and Mr drs. D. van Zuilen, Staff member Stichting Jeugd en Cultuur, Amsterdam, who assisted me with their help concerning the content of the conference.

Jan M. de Grauw
Project Manager Art&fact

Managing director LOKV, Netherlands Institute for Arts Education

BAUKJE VELLEKOOP

Word of Welcome

Ladies and gentlemen,

It is an honour and pleasure to welcome State Secretary Aad Nuis from the Ministry of Education, Culture and Science.
Welcome to all guests from abroad, welcome to all guests from the Netherlands.
A special word of welcome to all those who will give a presentation, read a paper or lead a discussion in the coming two days. Thank you for your willingness to actively contribute to this conference or preparations by sharing your knowledge and experiences with others.
Also a special word of welcome to all those LOKV staff members who have taken on the preparations and realization of this conference. Without their efforts there would not have been a conference.

I am very proud to welcome you all here; researchers, policy makers and key figures from the practice of arts education, and I hope that all of you will be able to voice many of your own views and gain more insight into those of others.

Interaction through interchange, broadening knowledge through elaboration and reflection. Reflection on the practice of art and education. Reflection through presentation of research into this particular practice resulting in a nuanced view of developments in and the development of the more practical aspects.

I am proud that the organizers have managed to set up a conference with such a substantial programme. Sometimes in the face of opposition, for there are cynics everywhere. 'Insiders' told us in advance that hardly any representative research would be on hand in this field. And certainly not enough to put together an interesting programme!
If you have studied the programme as closely as I have, then you cannot fail to note that cynics are not always right. Sometimes enthusiasm and conviction gain the upperhand. A start has to be made somewhere.

WHY IN THE NETHERLANDS?

Why not in the Netherlands. Not because the Netherlands is furthest advanced in research into this field of policy. But because practice in the Netherlands is interesting and is flourishing, despite a lack of research information.
The Netherlands lends many research results to institutions abroad. And what is wrong with foreign institutions visiting the Netherlands for a change?

Conversely, one could say that research carried out here, however little it may be, is of a very high quality and is therefore worth knowing about. Your presence here today indicates how important it is to organize such a conference.

Generally speaking, in the Netherlands research into the field of the arts, arts education and the amateur arts involves cultural-sociological research. Research into the content, learning processes and, for example, the learning effects of arts education is mainly focused on the visual arts and music. This is also reflected in the programme.
In addition, in the conference programme a special place is devoted to research which surpasses the discipline, like, for example, in the field of aesthetic development.

WHY IN ROTTERDAM?
I was born here, but that is not the real reason.
Contrary to what most people think, Rotterdam has a very positive art climate. People in political circles as well as institutions in the infrastructure in this city are conscious of the fact that arts education deserves a lot of attention. The SKVR plays an important role in this respect and has also been very helpful during the preparations of this conference.

WHY IS LOKV ORGANIZING THIS CONFERENCE?
After all, LOKV is neither a university nor a research institution.
Well, simply because otherwise nobody else would take the initiative.
One of LOKV's objectives is improvement of the quality of intramural and extramural arts education involving all arts disciplines. To this end it has various instruments to hand, for example: mediation in the arts, development of new technical aspects, concepts and programmes, skills enhancement, stimulation of cooperation between schools, arts institutions and institutions for arts education, documentation and issuing publications. Promotion of research into this field of policy is also one of our tasks.

WHY PROMOTE RESEARCH?
For a long time it was not the done thing in the Netherlands to call attention to research within the world of art and arts education. This is art, which is rather elusive and emotionally charged, and education which involves creative processes.

The world of arts education seemed to fear that it would have to give up its dreams as soon as facts are gathered.
This may be the reality in some respects. But, on the other hand I hope that the research results will clear the way for inspiration and increased efforts towards realizing these dreams more effectively.

I am convinced that the combination of inspiration from the arts, involvement in the learning human being and knowledge and insight from a research point of view will be the best guarantee for quality in arts education.

Who would be better at expressing this than the State Secretary of Education, Culture and Science, who, in view of his position, unites all the fields of policy on which this conference is based?

I am therefore very pleased that he has expressed his willingness to officially open this conference.

State Secretary of Education,
Culture and Science

AAD NUIS

Introduction

Ladies and gentlemen,

There is one thing about which we all agree: where possible our first introduction to culture should be the start of a friendship for life. Not so much because culture will always treat you right or help you through the hard times, for although it is probably true that culture can work such wonders, I am essentially concerned with its mind-broadening role, in the field of art in particular. Art invites you to think with someone else's mind, to see through someone else's eyes. Art broadens the horizons.

There are basically two important questions to be asked when discussing an introduction to the world of art: How does one get the parties to meet, and how can one be sure that this is done in the right way? Since the latter issue, that of how to measure the impact of cultural education, will be the subject of an undoubtedly lively debate between the many experts gathered here today, I shall confine myself to the actual introduction.

Let's first look at the place of that introduction to the arts in the education system. All children from all groups within our multi-cultural society can after all be reached through the schools. Schools are the perfect places to indulge in one's curiosity... curiosity about art, about each other and, no less important, about one another's cultural backgrounds.

We know that the impact of artistically oriented education is particularly strong in children from an art-minded background. Hard to swallow though that may be, it confirms my conviction that art education needs, and will continue to need, to be given a prominent place within the education system.

And then of course there are the lessons themselves. It is during the lessons that a friendship with art is forged and children learn to look at art and experience it. Their perception is heightened and their imagination stimulated. One step further and we reach the stage of training the imagination and coaxing it along into sounds, words or movements. Culture exercises the muscles of the powers of imagination. Art and culture serve to exercise the muscles of one's mind in much the same way as fitness exercises are good for the agility of the body. The only difference is the tools that are used: the high bar to flex the muscles, or an image, a story, a thought or a scent to flex the mind, as a platform to compiling a personal

stockpile of ideas to create your own stories, plays, images or music. This provides you a multitude of stories and a multitude of lives. That is quite a discovery. In much the same way as it is fun to discover what an agile body can do, it is great fun to find out what you can achieve with an agile mind.

It goes without saying that the teacher plays a prominent role in these lessons. Of course there are technical considerations: how do you use the paint, the clay, the sentences to mould your own story? But the encouragement to take the plunge is at least as important.

Everyone in the Netherlands knows Multatuli's epic book about a young boy's life, *Woutertje Pieterse*. You may recall the response of the boy's schoolmaster to the poem created by his pupil, Wouter, which I assure you showed a great deal more imagination than any of the other pupils had mustered. No sooner does the schoolmaster clap eyes on this poem, which is entitled *The Robber's Song*, or he rushes off to read the boy's mother the riot act and convince her of her child's reprehensible powers of imagination.

Fortunately we have come a long way since those days. If anything, today's teachers are the antithesis of that awful schoolmaster. Rather than trying to tether a child's imagination to his or her biological age, they do everything they can to give their pupils a leg up towards expressing their imagination.

A great deal of agility is required from art teachers if they are to succeed in firing the spark of artistic talent in children who are not as expressively gifted as the author of *The Robber's Song*. How do you reach as many children as possible - children who each have their own history? This is where professional artists have an important contribution to make to the process of new discoveries, by showing children at close quarters how to classify, intensify, tilt and compress reality.

Another important element in a meaningful system of art education is that there must be more to it than simply creating and observing art. It is of equal importance to invite pupils to respond to art, to elicit a reaction that is hopefully somewhat less dampened by temerity than that of the anxious audience of *The Robber's Song*. Responding to the things being made at school, but also to the things created elsewhere by professional painters and sculptors, drama groups, orchestras, etcetera.

The traditional accent on art as something which is there to be observed has shifted. I would advocate striking the right balance between looking at the professional supply of artworks and that which is created by non-professionals who are each expressing their own story. I am convinced that professional artists can make a valuable contribution in this area.

If I were to show you a map of the Netherlands with markers indicating the places were art education projects are currently under way, you would be amazed at the

density of the network. Interesting projects are spread throughout the Netherlands, from the large cities to the country. In the Province of Overijssel schools are engaged in a communal singing project while in Den Helder, children from a number of different schools make poems together. However, the question remains as to whether we are making enough of the opportunities offered to exchange these projects. I would say that this deserves a little extra attention.

The Platform for Art Education in Secondary Schools set up by my Ministry aims at bringing schools into contact with one another, thus enabling them to learn from the experience gained by others.
Being introduced to projects carried out by other parties is merely the first step towards exchanging these projects, for the success of a particular project in one location does not mean that the same project will also succeed somewhere else. You cannot expect the 'Overijssel Sings' project to be changed into 'Rotterdam Sings' overnight. There is more to it than that. Each situation requires its own specific accents, to be taken into account when translating the original concept.

Intensification of exchange calls for an element of directing. This is where the National Organization for Artistic Education has a valuable contribution to make. However, the success of a director stands or falls with his or her actors, and with their wish and ability to interact. Similarly, any success the National Organization for Artistic Education may have in this respect will depend on adjustment in the collaboration between centers for artistic education, music schools, support facilities, schools and national institutions. I see this as an interesting challenge for the period covered by the new culture policy document.

It will undoubtedly take a lot of hard work, but it will be a worthwhile effort provided we do not lose sight of why we are doing it and for whom.

The whole thing revolves around friendship - a close friendship forged between our children and the arts, the powers of imagination.

Woutertje Pieterse shows that with the support of this friendship, he is more than able to cope with the lack of understanding displayed by the likes of his school teacher: 'My goodness, Wouter, what is wrong with you... you look as if you have lost your mind!'
Wouter had got up from his seat. Head held high, he gazed boldly at the beams and placed his right hand over his heart, stretching out his left hand as if to drape a Spanish cloak (please bear in mind that the boy had never been in a theatre in his life), then spoke the immortal words: '...I am a prince!'

1 MICHAEL J. PARSONS

Visual and Verbal Learning in Art: The Consequences of Developments in Aesthetics for Art Education and the Psychology of Art

My paper is about the changes that have occurred in contemporary philosophy of art in the US and their consequences for the psychology of art and art education. To begin with, I do not want to make a sharp distinction between contemporary aesthetics - that is, the philosophy of art - and contemporary art. These two are connected. They influence each other and they have undergone similar changes over the last twenty-five years or so. They are a part of a loosely connected system - often called the artworld - which also includes the practices of art critics, museum curators, gallery owners, collectors and others. So while I will speak of changes in aesthetics, I think there have been similar changes in contemporary art. The consequences of both for art education and for the psychology of art are much the same. In practice I believe art educators are more influenced by art than by the philosophy of art.

We all know there has been a great change in aesthetics in the last quarter century. It is sometimes described as a change from the modern to the postmodern. In the US the title 'postmodern' tends to be associated with the more radical views within the contemporary spectrum. Because I am concerned today only with a general outline of this change and not with the controversies within it, I will speak not of the postmodern but of the contemporary. There are many variations and debates within postmodernism, but I believe the general direction of the change is reasonably clear.

I will briefly contrast modern and contemporary views in the philosophy of art. The essence of modern views is that an artwork is a purely aesthetic object. An aesthetic object is one whose qualities can be seen - heard in the case of music - without having to be mediated by inference, or verbal thought, or by a knowledge of particular contexts or by special information. It is a purely perceptual object, identical with what can be seen or heard, and not with what is known about it. In the modern view aesthetics is the science of appearances, of what can be grasped directly by the senses in perception.

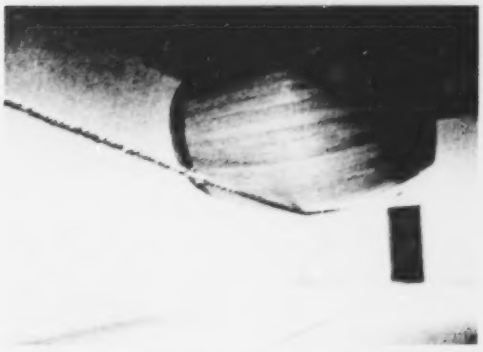
Contemporary views, on the other hand, understand an artwork to be constituted by two kinds of things: by its strictly aesthetic qualities and by a knowledge of its context. These two kinds of factors work in complex interaction with each other. An artwork is then a symbolic object rather than a purely aesthetic one, one whose meaning depends in part on connection with a cultural context. The interaction of aesthetic qualities and a knowledge of contexts happens in interpretation and an

adequate response to art, we can say, requires interpretation rather than just perception. Interpretation includes perception but goes beyond it.

In the US, the modern view in aesthetics is probably best represented by the work of Monroe Beardsley and Nelson Goodman and the contemporary view by the work of Arthur Danto.
Monroe Beardsley led the attempt to explain an artwork as a purely aesthetic object. He refined the notion that an artwork is a set of aesthetic - that is, perceptual - qualities. He was willing to be generous in what counts as an aesthetic quality. His list included those suggested by formalism, such as the qualities of line, shape, color and form. These he called the qualities of elements of the work. He also included more complex qualities - what he called 'regional qualities', which belonged to complex regions or areas of a work - including expressive ones such as joy, anger, loneliness. Grasping these qualities required acts that were either analytic or synthetic. Analysis called for the sharp sensory discrimination of the qualities of elements, synthesis for a comprehensive grasp of the qualities of regions or the whole of a work. Both analysis and synthesis were acts of direct perception. An aesthetic quality, then, was any quality, no matter how complex or subtle, that can be seen as belonging to the object by a reasonable beholder in reasonable conditions. The only restriction was that it must not be mediated by symbolic material external to the artwork. For art educators, the consequent goal of art education was quite clear: it was to develop the powers of aesthetic perception.

Nelson Goodman was also a modernist in that he also believed that the significant qualities of an artwork must be fully perceptible in the work itself. This statement might be thought surprising because Goodman argued that significance in art was based on conventions - on a set of conventions that determined how we read the medium of art. To talk of conventions in this way implies the importance of historical and cultural context since conventions change over time and cultures. For example, Goodman famously argued that what is seen as realistic in painting has varied greatly over the centuries. But Goodman's object of analysis, philosophically, was the art medium rather than the individual artwork. He described the art medium as a symbol system in the terms of which meanings are constructed and perceived in an individual work. It was the art medium that was governed by conventions. The meaning of a particular artwork, on the other hand, lay only in the internal arrangement of the elements of its medium - in the the lines, shapes, colors, for example - much as the meaning of sentences lies in an arrangement of words. So Goodman also insisted - and this is what I am calling the essence of modernism - that the meanings of particular artworks were internal to them. They lay in the subtleties of the relationships of the elements of the medium with each other and did not depend on anything external to the work. It follows that those meanings could be grasped directly in perception, unaffected by the context of the particular work. If the beholder needed knowledge of the historical context, it was only of the conventions that governed the use of the art medium in general. It was not knowledge of ideas about art or of the cultural context of the particular work.

The goal of art education, on this view, was to develop the abilities to perceive and create meanings within different media, conceived as symbol systems. It was to help children think visually, within the terms of a medium. It is well known that Goodman's philosophy influenced Project Zero, which undertook to explore children's abilities with art media understood as symbol systems.



Summaries of aesthetics like this are rather dry and I am going to illustrate mine with a slide of a contemporary artwork.
I chose this work because it happened to be in an exhibition in my home town, Columbus, Ohio, at the Columbus Museum of Art, as I was writing. The exhibition was called *Visions of America: Landscape as Metaphor in the Late Twentieth Century*. The work is called *Spirit* and it is by Mel Chin, a New York artist.

I will first describe, to begin with, the qualities of this work that Monroe Beardsley would think are part of it as an aesthetic object, that is, of its perceptual qualities. *Spirit* consists of an enormous oak barrel, balanced on a rope than runs the length of a narrow rectangular room. The barrel is stout and well crafted. The rope is thick and not smooth. The barrel occupies much of the space available. One cannot easily walk around it but almost must go under the barrel. As one does so it seems oppressive. It is perfectly balanced on the rope but one wonders whether it is secure and whether the rope might break. There is a sense of weight to the barrel and of threat as one walks around it. Beardsley would probably count this sense of threat as a complex regional aesthetic quality, because it can be felt, if not seen, as an objective property of the work.
This is about as far as a purely aesthetic account can take us with *Spirit*. Notice that, without more overt interpretation, it is not clear whether the room itself, with its white walls and dark ceiling, is part of the work. Should we see the plain white walls as part of the room in which the work just happens to be hung or as part of the work itself? Should we look at them for their aesthetic qualities? There is no way to settle this question just by looking.

Nelson Goodman's approach, as distinct from Monroe Beardsley's, has little to offer here because it focuses on the art medium rather than on the individual work. In this case it seems that there is no traditional medium of the sort Goodman talked about, no paint on canvas, no charcoal on paper. The materials used - rope, an oak barrel - might be thought of as a symbol system in Goodman's sense, but there is little value in having children study them as a system, since they are brought together ad hoc for this work only. There is no general set of conventions that governs the use of these materials and tells us how to find meanings in their internal arrangement in general.

It is because of works like this that Goodman's philosophy of art, a kind of structuralism, has lost its interest in aesthetics. It has little to offer for the analysis of contemporary works.

Spirit is not a complex visual object but it is a complex artwork. To realize its complexity we must interpret it, relate it to some context. Just how interpretation works and what kinds of contexts are relevant are topics that contemporary philosophers of art debate.

I take Arthur Danto as in many ways representative. His writings on interpretation and on the relevance of contexts are well known. Interpretation means constructing the meaning of an artwork by relating its purely aesthetic qualities to its context. The kind of context in question varies. Many think that any kind of context, historical, political, cultural, can be relevant, depending on the work in question. Indeed, it is hard to see how one can set limits in general about what will be relevant in particular cases. For Danto the important context tends to be the artworld, which on his account consists as much of theories and ideas as of practices or institutions. Art, Danto said in a famous passage, exists only 'in an atmosphere of theory.'[1] This means that ideas about art, and perhaps about much else, are a part of the constitution of the work itself, an essential ingredient that interacts with its purely perceptual qualities and makes them significant. This interaction is circular and in it the artwork is reconstructed by the beholder. The perceptual qualities of the work help us to decide what context is relevant and, simultaneously, the context helps us decide the significance of the perceptual qualities. Even the question what the perceptual qualities of the work are is not always answered by perception alone (as with the room that might be just the site for *Spirit* and might be part of it). The general name for this constructive activity is interpretation.

The shift from a purely perceptual to an interpretive approach has affected most Anglo-American aestheticians. This does not mean that they think of themselves as postmodernists, or in some way revolutionaries in aesthetics. For example, many do not favour what the conference brochure calls the 'radical relativism' of postmodernism. Most of them, when seeking the meanings of an artwork, look to the meanings it had for its original audience. For them, the question how the present context of the beholder affects the work is less interesting. They consult the context of origin rather than that of reception. This is a conservative posture in the contemporary scene. One could reply that of course the original context has also to be reconstructed by the beholder and that this reconstruction may vary in turn with the context of the beholder. It seems to me that most US philosophers assume that there will not be great variation in beholders' understanding of the original context because there are ways of reaching reasonable agreement about it. No doubt there is room here for disagreement. But the important point is that an orientation to the importance of context and of interpretation is the basis of many views that are not 'radically postmodern'.

What about the context of *Spirit*? It is a context of present environmental concern and American history. The catalog says it nicely. It says that Chin's work explores, 'landscape as both a physical entity and a cultural construct, as a space with political, economic and ecological dimensions.'[2] A space with political, economic and ecological dimensions is not a purely aesthetic space. *Spirit* is about the effects of the steady movement westwards across the plains of America of nineteenth century settlers always in search of new land. The barrel, as the catalog says, 'recalls the casks common to American frontier life. Everyday necessities essential to the survival of the early settlers, such as grain, pork, oil, alcoholic spirits and gunpowder, were transported and stored in these casks.'[3] Incidentally, the title 'spirit' may be a particular reference to alcoholic spirits, which are still transported in oak barrels, and which brought cultural destruction to many Native American peoples. In any case, Chin's view is that this nineteenth century westward movement and this kind of trade have put a tremendous burden on the ecosystem of the great plains, reducing it to a state where it can barely support the weight put on it. This interpretation, incidentally, makes it clear that the room is a part of the work, especially the ceiling, which presses down on the barrel, suggesting that it has already reached a maximum size and creating a strong sense of limits.

These ecological references are reinforced when we discover (from the description on the wall) that *Spirit*'s rope is made of grasses native to the prairies in Colorado. Moreover, they are grasses that are threatened with extinction, such as Big Bluestem, and were gathered by Chin from a national preserve in Topeka, Kansas.

Chin, along with assistants, studied these grasses and wove them into the rope, and these activities are integral parts of the creation of the work. And we can say that Chin's knowledge, and our knowledge, of these grasses, of their original state and their threatened existence, and of the westward movement and the trade that it brought, and concern for the ecology of the prairies: all of these are integral to *Spirit*, are parts of it, interacting with its purely aesthetic qualities to create a meaningful work.

This is a simple example of how interpretation uses, but goes beyond, perception. It is also an example of the way in which the practice of artists affects art education quite directly. This work, and others in the *Landscape as Metaphor*-exhibition, has been much studied and discussed in schools around Columbus and has led many students to make artworks on environmental themes.

I turn to the question: what are the consequences of this sort of change in aesthetics for the psychology of art and for art education? I will discuss four kinds of consequences.

GOALS

The most obvious is a change in our conception of the relevant abilities of children. We used to think that the important abilities, for both educators and psychologists, were those of creating and perceiving the aesthetic qualities of artworks. For

evidence, we can look at Haanstra's dissertation *Effects of Art Education on Visual-spatial Ability and Aesthetic Perception : Two Meta-analyses*, which suggests how many studies have been carried out to measure improvements in perceptual abilities. Now, however, we must be primarily concerned with abilities to interpret artworks, to make meaning of them. These abilities overlap with perceptual abilities, it is true, but they include more beside. And by including more they change our sense of what the perceptual abilities are. We used to speak as if they were a matter either of the fine sensory discrimination of elements or of the more complex grasp of the arrangement of areas or wholes. Now it is a matter of finding perception meaningful in some way. In short, we should be primarily concerned with the ways in which students understand artworks.

An example of the difference comes from the numerous studies of children's abilities with artistic style. The modernist question was whether students could recognize different styles. For instance, could they group works of similar style together? The interpretivist question is in what ways students find styles significant. What do they understand of styles? Another example is preference studies. The modernist question is which works do students prefer? And do their preferences coincide with the preferences of experts? The interpretivist question is why they prefer certain works and what meanings their preferences carry for them.

My impression is that this change in goals has considerably affected art education in the US. There are many art teachers who teach for understanding rather than just perception. Of course, this is only in some parts and there are also many teachers who remain devoted to modernist ways. I see fewer signs that the change has yet affected the psychology of art.

VISUAL AND VERBAL THINKING

A second consequence has to do with the relation of verbal thinking to visual thinking. The modernist view, spelled out by Rudolph Arnheim and by Nelson Goodman, was that thinking occurs wholly within a particular medium and does not easily - or at all - carry over between media. So visual perception, Arnheim argued, is a matter of intelligent thinking and the thinking occurs wholly within the visual medium, in the discrimination and combination of its elements. Such thinking is best when it is most purely visual, not mixed with other media, such as natural language. Thinking in other media, in Arnheim's view, especially in words, dilutes and interferes with the purely visual logic of art.[4] For modernists, therefore, words were at best something added on to the study of the arts; at worst they were a source of distortion. The ideal was perception capable of grasping everything there was to be seen, purged of all taint of verbal meanings.

For the contemporary aesthetician, on the other hand, visual and verbal thinking are both needed in interpreting artworks, both active at the same time, neither one sufficient by itself. The modernist interest in differentiating kinds of thinking has given way to an interest in how they are integrated in understanding. The important question for art teachers is which combination of activities will promote

the fruitful interaction of perception and ordinary language? How can we ensure that, on the one hand, we do not overwhelm an artwork with words and abstract ideas, as the modernists feared, and, on the other hand, that we do not reduce a work to only its surface appearance, as interpretivists fear?

One answer comes from the case of the students in Columbus who studied Mel Chin's *Spirit* and then created environmental works of their own. This activity required a different understanding of the creative process - what in the US is called 'studio work' and here I believe is called 'productive' or 'active' work. Production is not only a matter of the subtle arrangement of the visual elements of a medium in a studio. Instead, the artmaking process required the students to engage in the same range of activities that Chin did: to identify themes in their changing environment, to study how they apply locally, to invent and discuss ways to make visible what is happening to their environment, and to embody their thoughts in a particular work. This involved a range of reading and discussion, of looking and discriminating, of making, inquiring and reflecting. In this case the distinctions between art production, reception and reflection cease to be important because art making included all these kinds of activity. In a similar way, I would argue, art criticism can include productive, receptive and reflective activities. For example, the appropriation of art historical images is a familiar practice in contemporary art and can be the articulation of a critical view of the original.

With regard to the psychology of art, again it is not clear that there has been much change in this direction. One reason is no doubt the strength of the methodological concerns of traditional psychology. Researching understanding, rather than perception, appears to require more qualitative than quantitative methodologies. Another reason is the continuing influence of the modernist philosophers who shaped the cognitive psychology of art in the early 60s, especially of Nelson Goodman. A notable recent example of continuing Goodman's influence is Howard Gardner's writing about multiple intelligences, which is currently popular in the US. The idea is that, just as there are separate symbol systems in terms of which thinking occurs, so there are separate kinds of intelligence specific to each symbol system. Gardner argues that in education we should nurture and assess these different intelligences in their separate and medium-specific terms. This of course is the opposite of a contemporary view in aesthetics. One disadvantage of this notion is that it restricts the range of what counts as thinking in the arts so much that it is hard to see how art can be about important personal or political matters, such as environmental damage.

CURRICULUM

A third consequence has to do with the art curriculum. Interpretation requires the study of context, perception does not. Contemporary art is often engaged with social and community issues. Such concerns call on a knowledge of contextual material that is normally found in the school curriculum but not seen as relevant to art. The contemporary view offers the opportunity to integrate art with other school subjects in an important way. This way does not reduce art to an instrument for

illustrating or supporting other school subjects; instead those other subjects become supports for art because they provide the contexts necessary for interpretation. When art is concerned with a theme like environmental damage, it can lend meaning to material in history, biology, geography and language arts. At the same time, art gains interest and becomes more meaningful. There is therefore an emerging view in the US that art educators can offer leadership for the reform of the school curriculum as a whole, via the integration of different school subjects and the provision of a wide range of modes of learning.

Part of the curriculum issue in the US has to do with DBAE, the Discipline-based Art Education movement: i.e., the view that we should add art criticism, art history and aesthetics to artmaking activities in school. It is true that DBAE was initially couched in modernist terms that emphasized disciplinary structures. For this reason, DBAE has been said to be irretrievably modernist and unsuited to contemporary views.[5] But I believe that it may as easily be associated with interpretivist views as with modernist ones. An interpretivist view suggests that the different kinds of art studies are best seen not as disciplines so much as studies of contexts: of artworld, historical and cultural contexts. DBAE then becomes the study of artworks in their contexts and a candidate for influence in the reform of the whole school curriculum, rather than just the reform of the art curriculum.

MULTIPLE POINTS OF VIEW

I will mention one last consequence for art education. It is that our goals should include the flexibility of mind that enables students to entertain more than one interpretation of a work at one time. The modernist view was that in principle there is one correct way to understand an artwork. The contemporary view is that there may be many meaningful ways. This follows from what has been said about contexts. Since there are different contexts that may be relevant to a work, there may be as many interpretations of it and they do not necessarily deny each other. A beholder may see each of these interpretations as reasonable because each can be justified by relation to a context. If we allow that contexts themselves must be reconstructed by beholders, and that these reconstructions may vary with different beholders, then there is considerable room for different interpretations.

This kind of thinking, in which multiple points of view can co-exist and each be thought reasonable because it is meaningfully related to cultural background, is needed in our increasingly diverse and multicultural societies. Contemporary art models it better than any other school subject. Sometimes I hear science or mathematics held up as embodying the most desirable kind of thinking today. But in my view, understanding art is a paradigm of the sort of thinking required by contemporary society: complex, demanding, thoughtful, emotionally-laden, multiply-voiced and contextually-sensitive. Artworks are powerful embodiments of common concerns that call for active interpretation, unite several media of thought, relate to various contexts and are susceptible of multiple interpretations. For these reasons, the study of art promotes in its highest sophistication the kind of understanding required by a contemporary society in which groups co-exist with

different histories, values, culturally determined meanings and points of view.

This, I think, sets the tasks of art education and the psychology of art. It is to investigate the abilities and ways in which students find meaning in artworks, how they relate artworks to various contexts and come to entertain multiple interpretations of them. It is then to experiment with programs of education that will nurture these abilities, and finally to create ways of assessing them. This, as I see it, is the contemporary challenge of both art education and to the psychology of art.

Notes

1 Danto, Arthur C. (1981). *The Philosophical Disenfranchisement of Art*. Cambridge, MA, Harvard University Press, p. 39.

2 Beardsley, John (1994). Mel Chin. In: *Visions of America: Landscape as Metaphor in Late Twentieth Century*, catalog of the exhibition published by the Denver Art Museum and the Columbus Museum of Art, p. 123.

3 Op. cit., p. 192.

4 Arnheim, Rudolf (1969). *Visual Thinking*. Berkeley, University of California Press.

5 For example, see Kerry Freedman in Efland, Freedman and Stuhr (1995). *Postmodern Art Education: An Approach to Curriculum*. The National Art Education Association, Reston, Virginia.

Michael J. Parsons

Michael J. Parsons is currently Head of the Art Education Department at the Ohio State University, where he teaches courses in Philosophy of Art Education.

He is author of *How we understand Art* and of numerous articles that have appeared in *The Journal of Aesthetics and Art Criticism* and other education and art education publications.

He is co-author of *Aesthetics and Education*, University of Illinois Press, 1993, a book written with Gene Blocker, intended for art teachers; *Cognition as Interpretation in Art Education*, a paper in the 1992 NSSE yearbook, The Arts, Education and Aesthetic Knowing, edited Ralph Smith, University of Chicago Press. He is Co-Director of a new large grant for curriculum development from the Getty Center in Los Angeles. This grant will try to bring contemporary art and DBAE together, and it will involve a large number of our faculty.

2 RONALD N. MACGREGOR

What You See and What You Get: Assessment and Its Constituents

A decade makes a difference. Ten years ago, a conference that included a major segment on assessment with this breadth of international representation, would not have been held. Certain countries, it's true, would have had assessment practices firmly in place - England and Wales, Scotland, Holland - but the motivation to exchange information, the desire to look deeper into the validity and defensibility of assessment practices, would have been less evident. Now, in 1995, the proliferation of alternatives offered by the disseminated literature of countries where system-wide assessment occurs, along with materials developed by national groups such as the USA's Advanced Placement program and international organizations such as International Baccalaureate, combined with initiatives recently developed in America by the National Assessment of Educational Progress and the Consortium of National Arts Education Associations, threaten to drown us all in a deluge of information.

The common response to an excess of information is to seek refuge in first principles. Typically, these form three categories: What I must know (in order to survive); what I should know (to feel confident in a situation); what I might know (but probably won't bother with, for now).

From the classroom teacher's perspective, successful negotiation of the first, survival stage requires a working knowledge of how assessment is conducted and recorded at the school level, or the district level, or the national level: what's to be examined, who does what, what form the index of assessment takes. For most teachers, though, survival is not enough. They do not wish simply to go through the motions; they are conscious that education is value-laden, and they want to be confident that the values they communicate to students will be useful in helping those students succeed. Teachers are therefore likely to jump back and forth between what they must know and what they should know, as they reflect on the place assessment takes in their professional lives.

For teachers in systems where districtwide or national assessment is already in place, their reflections are conditioned by syllabi, or centrally developed instructions that all teachers are required to follow. The formalization of procedures, however, means that attention often focuses thereafter on fine tuning and the resolution of specific problems, while questions of why assessment may have been important in the first place are neglected. For insight into the kinds of questions that teachers ask spontaneously, or the difficulties they may experience in understanding why

certain apparently taken-for-granted practices should occur, the most productive sources may be those countries where assessment is still handled by individual teachers operating autonomously within their own schools.[1]

Recently, I had the opportunity to observe how teachers dealt with the problems of defining what they did in art classrooms, when asked to provide measures of performance (or it may have been, estimates of ability). My account of these will furnish something of an overview of how teachers make choices about what is important to consider in assessment, and how their conduct is related to assessment issues that engage the field of art education, nationally and internationally.

My observations took place in a school district in British Columbia, one of the ten Canadian provinces. Those of you not familiar with the educational structure in Canada should be aware that in that country, education is a provincial matter, so each of the provinces has its own Ministry of Education. Each province is divided into school districts; in British Columbia, there are 75 of them. Some cover huge rural areas, while others are concentrated in urban centres. The school district I describe here is semi-urban, and contains 10 high schools and 25 elementary schools.

As part of the high school teachers' professional development, the fine arts supervisor and the teachers had agreed that they would try to put together art assessment criteria for common use throughout the district's high schools. The intent was to replace the individual criteria that each teacher had used till then. One of the reasons for attempting to arrive at common criteria was the continuing refusal of the province's Universities Admissions Committees to accept Art as a subject for entry: the explanation being that these committees had no way of determining whether the 75% earned as an art grade in one school bore any resemblance to the 75% earned in another, in content or in quality.

CRITERIA CONSIDERATIONS

The first meeting of these teachers was marked by discussion of the criteria they already used. All said they set criteria in advance, but from some of the accounts given, it seemed additional criteria might emerge as the project developed. One teacher described a project in which the explicit criteria were evidence of warm and cool colour contrast, and the ability to blend colours. It became apparent from her account that the ability to select colours that contributed to the overall impact of the work was an additional, unstipulated criterion for success. None of the other teachers took issue with what amounted to changing the game plan without informing the players.

This example contrasts with other instances where changes in criteria were deliberately made. Changes in emphasis as the school year went on might result in changes in criteria; as when the focus on acquiring technique was gradually replaced by inventive combinations of ideas. Changes in criteria might also be

attributable to the stage or phase of the work at which performance was sampled. Benefits were noted in holding interviews with students to confirm that criteria had been understood: a practice highly desirable in a district that has a multi-ethnic population, and where North American frankness in saying 'I don't understand' does not always come naturally to students.

PERFORMANCE INDICATORS

In deciding to use the British Columbia Art Curriculum Guide as a model around which to build performance indicators, the group was acknowledging the existence of a document that purports to reflect the priorities of art teachers throughout the province. It is developed for the Ministry of Education by a representative group of teachers; it is revised or radically restructured every ten years or so, to reflect changing values. Nevertheless, its existence among British Columbia's independent-minded art teachers is barely admitted, and it is an article of faith to claim, when asked about its contents, not to have seen a copy for years.

It was therefore a surprise to have it adopted by the group, but at the same time, a logical enough alternative to spending hours hammering out a model from scratch. The Guide yielded six categories of activities: imagery development; design elements and principles; historical/contemporary developments; criticism; tools, equipment, and processes; vocabulary. Using large sheets of paper that were written on, written over, then tossed aside when discussion of a category was complete, the teacher group argued its way through evidence for High, Low, and Medium levels of performance in each category.

The group was surprised to find how many taken-for-granted statements hid underlying problems. Something as simple as 'The student has produced a complete work' begged the question, What happens if a student deliberately leaves a work unfinished? How would one know that a work is 'complete'? One teacher noted, 'I'd want to be sure that, as I looked at student work on different occasions, the same descriptors were being applied.' Writing stable and unambiguous descriptors to satisfy that demand consumed a good deal of energy and adrenaline.

Applying descriptors to student work rapidly becomes so familiar to assessors that it is easy to forget how intimidating it is to a neophyte. At an International Baccalaureate training session I once attended , one of the participants, confronted by a list of descriptors, remarked, 'I think these might scare my students; they sure scare me!'[2]

The British Columbia group were faced with a similar daunting task: deriving a grade from the descriptors, and only the descriptors. One teacher remarked, of the category Tools, equipment and processes, that student proficiency depends significantly on the teacher's organizational skills (something that teachers might reflect on, in their award of marks); another noted that safety regulations impose a permissible context that sharply limits the usual high priority given in art activities to discovery and originality. The group soon found that processes did not even belong

in the same conceptual category as tools and equipment. Using photography as an example, one teacher demonstrated how variations in the same process, or bypassing the usual steps in a process, might radically, yet beneficially affect the result. Moreover, someone pointed out that photographic tools and equipment offer means to processes, but are themselves only assessable as items of vocabulary.

APPLYING DESCRIPTORS TO STUDENT WORK

The group divided into pairs, to try out the indicators of performance they had developed on student works that each teacher had contributed. One pair, reviewing a selection of portraits, soon ran into difficulty in dealing with image development. The indices of high, middle and low levels of performance had been created to describe work undertaken over time, and were not appropriate for the cross-section of work the teachers were now considering. Another pair had a different kind of problem: not knowing what the objectives for each portraiture project were, they were unable to tell whether the products had happened to depart in original ways from the assignment, or whether originality had been a built-in requirement of the project. This led to a general wrangle about what was being evaluated - was it art, or was it response to assignments - and to the possibility of having two portfolios to assess: a working portfolio, with evidence of productivity over time; and an exhibition portfolio, featuring a selection of best work. This, in turn, provoked a discussion on whether the student ought to participate actively in the assessment of work: perhaps explaining what had been intended, or summarizing the sequence of events leading up to final selection of pieces for display.

When the group returned to the active assessment of student work, the original pairs of teachers spontaneously re-formed as irregular clumps that wandered from work to work, with teachers taking turns to explain how the works they were familiar with came to be developed and completed. One teacher remarked on how long it all seemed to be taking, and how much to-ing and fro-ing between works it entailed.

There followed a hiatus of almost three months, during which the teachers experimented in their own classrooms with the material they had put together as a group. When they reconvened, one teacher recounted how he had involved students in self-evaluation, using the descriptors developed by the group. In contrast, another declared that she had gone back to marking holistically, because the students wanted to know only how they had done overall, and in relation to their peers. A third had developed an end-of-term examination, with a written and a studio component, as a one shot means to determine what students had learned.

Several reported problems with portfolios. Students misplaced items, or failed to turn up at the time scheduled for discussion of portfolio contents. Individual interviews were found to be very time-consuming, and finding space and time to set up and take down student work was an irksome additional task.

This marked the last of the Professional Days given over to the assessment project.

In the time that has elapsed since then, I have been told by the District Fine Arts Consultant that the rapport established among the teachers has lasted. They interact more than previously; they argue about issues without feeling threatened or defensive; they use the common criteria they had developed as means to enculturate new teachers and student teachers in what their (and, by extension, the district's) priorities are.

I also subsequently talked at length with one of the teachers, who said that, for him, the greatest benefit had been the replacement of the idea of assessment as the award of grades with a definition that took note of the student's ability to reflect on, and interpret the work under review. 'In teacher-assigned, teacher-graded projects,' he said, 'you have only one set of criteria - your own. But how do you know that, from the student's viewpoint, you're marking the right stuff? Working with students who take an active part in interpreting the criteria means that the teacher is guided to look at things that would otherwise be missed.' (MacGregor, 1994, p. 35) Assessment, this teacher went on to say, exists to keep students honest, but is also an aid to the student's personal development.

DRAWING PARALLELS

One may now draw a few parallels between the questions that the teachers in this school district spontaneously generated, and those that are encountered in system-wide contexts. I offer five of these, with the aim of showing how, at times, the fit between individual and system expectations is quite snug; while at others, large gaps occur.

First, there is the matter of teacher background, reflected in readiness to undertake assessment. From the administrator's point of view, this is a good news/bad news situation.

The good news is that assessment is something that every teacher engages in, however informally. Since education is a qualitative enterprise, questions of what should be taught and why some things have priority over others are constantly formed and modified by teachers. Whether operating as relatively free agents, or as participants in formal assessment bodies, teachers do have criteria for the assessment of student work, and research shows that these are not radically different from country to country. (MacGregor, 1991)

The bad news is that any one set of assessment criteria applied unilaterally at any level is going to be met with resistance by at least part of the teaching force, on grounds that they are unfair or irrelevant to certain groups of students, or that they don't address, in the words of my teacher-informant, 'the right stuff'.
Sometimes this is simply a matter of developers being led astray. The early drafts of Standards for Art for schools in the USA had an inordinate emphasis on formal design principles.[3] This created a tidy and convenient arrangement of activities, but it was not, as respondents to the drafts were quick to point out, close to the untidy, multilayered reality of what was being taught in schools.

At other times, though, it is not a matter of simple adjustment. The 'unfair to my kids' protest generates some serious questions about the rights and responsibilities of teachers to make decisions on the kind of education their students should have. Is it unfair to present students with tasks that inevitably show up deficiencies in some of them? Is it even more unfair to arrange things so that those shortcomings are not evident locally, but will be all too apparent in a broader context: particularly, in the commercial or the academic marketplace?

Second parallel: Just as the teachers in the study I have described I had difficulty in interpreting the objectives of the provincial curriculum guide in terms that allowed them clearly to distinguish good from indifferent performance, so there exist elsewhere gaps between suggested competencies and how these may be operationalized. Many a teacher trying to reconcile what the assessing body accepts as evidence and what is actually transacted in the classroom is likely to think ruefully of T. S. Eliot's line, 'That is not what I meant; that is not it, at all.' A case in point is the Critical Studies component of the English National Curriculum, assailed by art teachers as having everything to do with names to be learned, and nothing to do with critical understanding. In an article that examines the weaknesses of the official position taken by government to Critical Studies, Arthur Hughes points out that teachers and assessors have never come to a common definition of what critical studies might be, let alone confronted the consequences for classroom practice of having students engage in genuinely critical activity. (Hughes, 1993)

The third parallel linking the British Columbia study with the larger context of assessment practice is the difficulty of separating the student from the work. The British Columbia group, you will recall, were originally assigned as pairs to conduct appraisals of work, but took early advantage of the opportunity to form larger groupings that combined talk about the art with talk about the circumstances in which it was made. Assessment bodies seem to be divided in the recognition they are prepared to give to contextual material. But wherever teachers are involved in providing evidence of performance, it is safe to say that who created the work, and what sort of record the individual has in the eyes of the teacher, are inevitable influences on judgment.

The relationship between teacher and student is, not uncommonly, close to that of surrogate parent and foster child. Some teachers have testified to the difficulty they have in moving from the role of adviser and confidant to that of judge and arbitrator, and back again. This is perhaps why organizations like International Baccalaureate think that assessment which is entirely external makes good sense: it frees the teacher to be a coach and advocate for the student.

I was present at a conversation between a teacher and an external assessor in South Australia, where the state-wide assessment system requires the teacher to provide an estimate of performance that the assessor then has the power to modify, by applying exemplary criteria developed systemwide. The assessor indicated that the student's mark should be reduced, in light of what had been established as criteria.

The teacher expressed relief, adding that he agreed with the assessor's estimate, but that he had been unable to mark the student down because the student was such a fine member of the school community.

This is not a matter to be dismissed with a shake of the head at the teacher's apparent indulgence. What a person does and how a person does it are two sides of the same educational coin. The teachers in my observed group argued, without final resolution, on whether assessment should be made of the 'art' (that is, of the art content of the product), or of response to assignments (that is, the extent to which the work satisfied assignment criteria). They might also have noted that criteria are not satisfied solely by work; they are satisfied by persons. What does not appear in the stated criteria, but is obviously much in the minds of teachers, is determining whether what the student has derived from the educational experience is as important, or even more important, than what the student has produced.

A fourth parallel, evidenced in the teacher group's difficulty in assessing a limited and arbitrary body of work, concerns the form that assessed material may take. Systems vary widely in this: some require portfolios, as well as examinations in practical and critical or historical content, while others require only the presentation of a limited number of student selected works.

Degree of centralization plays an important role here. Those systems which have schools send work by mail to a central point for assessment have to contend with complex mailing procedures, substantial costs for handling and warehousing, limits on the size and weight of artifacts, and quite often, the substitution of photographs for the works themselves.

Systems that favour local exhibition of work may much more readily accommodate what the Arts Propel group in the USA calls 'process-folios': evidences of evolution of a work or series. Since some highly creative endeavours are ultimately failures, local exhibition allows students to show false starts and dead ends that nevertheless are valuable indicators of a student's potential. The disadvantage of local exhibition is that, for any form of external assessment, assessors have to be imported, exhibition facilities arranged, and some set of exemplars provided as a reminder to teachers and assessors alike of what the range of work may be, systemwide.

The fifth, and final parallel is to be found in the degree of flexibility that teachers have within the system to reconcile what they ought to do with what they prefer to do. Left to their own devices, the teachers in the British Columbia school district showed varying levels of enthusiasm for continuing to use what they had developed. At least one of them, despite participating in a process that had focused on specific aspects of high, medium, and low levels of performance, reverted to grading holistically on grounds that students were interested in a final mark, rather than in feedback on those elements that had contributed to it. Though teachers within systems where common assessment procedures are employed do not have the option of choosing alternatives, that does not mean that teachers are

necessarily reconciled to what they are being asked to do, or that they will feel bound to contribute to its maintenance. It was evident from discussion during the sessions I attended with those British Columbia teachers that their coming together on a regular basis, and their taking active roles in constructing a framework for assessment, carried with it the obligation to act in accordance with what the group had developed. The three months gap between the penultimate and final meeting of the group eroded that obligation. Like the person who embarks on a physical fitness program, and who finds an increasing number of reasons for neglecting to carry it through, so for the art teacher without regular contact with, and involvement in the conduct of assessment, a certain disaffection is inevitable.

The matter of having a stake in the assessment enterprise gives rise to larger questions about ownership of the curriculum. The intent of the British Columbia teachers group was to offer to the provincial Ministry of Education a model that might be tried out by other school districts. Indeed, the Ministry had made available some funding to the School District for what was assumed by the group to be a pilot project. On the final day on which the group met, a representative from the Ministry of Education's Evaluation Branch was invited to attend. He praised the group for its initiative, but indicated that the current curriculum might not be in place much longer, since the Ministry's Curriculum Branch was considering other options. The group was exasperated, even outraged by the idea that they might have been structuring their efforts around a curriculum perhaps already obsolete. One of them said, 'This business of trying to second-guess a committee that we know nothing about, and whose motives are not clear to us, really sets us back. We think we've come up with something worthwhile. Why put our time into this if the overall framework is not certain.'
This was a salutary reminder of the difficulty of suspending the operations of all the parts of a bureaucracy, so as to get one's ducks in a row. The educational enterprise is armed by politics, power, and money, and these are not necessarily directed at the same target. Three examples will serve to show how education is affected differently by various combinations of these.

School districts in British Columbia can set their own policies for art assessment because they have traditionally held much of the power to shape how education is to be conducted. The school district hires teachers, controls the budget, and cooperates with the provincial government in delivering education to the public. This pattern, common across Canada, is resistant to national initiatives. There is no Federal Office of Education. Interpolation of a provincial layer of government ensures that Federal influence is limited to paying money to the provinces without having much influence on how it might be spent. There is, in short, no incentive to nationalize curriculum, or assessment.

In England and Wales, by contrast, government has in recent years made strenuous efforts to impose a centralized form of control over education, manifested in a national curriculum and apparent as an effort to break the authority of Local Education Authorities, which are roughly the equivalent of North American school

districts in role, if not in autonomy. John Steers, General Secretary of Britain's National Society for Education in Art and Design, in the course of an address in Montreal in 1993, quoted several documents deploring the British government's deliberate attempts to shift the function of education from a public service to one based on market economics, wherein schools competed for customers. (Steers, 1993)

The third example is offered by the United States, a country that occupies a position between the localized Canadian one and the centralized British one. There is a Federal Office of Education in the USA, but the administration of education is largely in the hands of the individual states and the school districts into which these are divided. Recent passage of Goals 2000: Educate America Act by the Federal government resulted in the arts being acknowledged as a core subject. In light of that recognition, national arts education associations have considered it politically sensible to establish levels of performance that may be expected from students across the country, through the creation of Standards for Art, Music, Drama, and Dance.

Given the traditional antipathy of arts teachers in the various states of America to suggestions of Federal interference, the committees that formulated the Standards have been careful to say that adoption of these by individual states is voluntary, and that their adoption does not represent the thin end of a National Curriculum wedge. At the same time, statements such as 'In spite of our disparateness, we Americans understand that ... we are one country ... We need national goals ... to provide a broad framework for state and local decision making' (Consortium of National Arts Education Associations, p. 11) are almost certain to bring a gleam to the eyes of educational federalists.

The teacher who undertakes assessment is inevitably committed to making decisions about values. Some, such as the values that underlie performance, are relatively overt. Others, those influencing what content is to be assessed and what ignored, require some distancing from everyday routines and events on the part of those involved, if motives are to be uncovered and agendas clarified. Still others, that underpin the structure of the education system itself, seem such a long way from the world of the classroom that the effort to grapple with them may seem hardly worthwhile. Yet, all these matters belong in the 'must know, should know' realm, that teachers must deal with if they are to be active participants in assessment.

Notes

1 A version of this study appeared in the *Journal of the British Columbia Art Teachers Association*

2 Unpublished material, collected by the author

3 The final draft of this document was published as *Standards for Art, Music, Drama and Dance* (see References)

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Ronald N. MacGregor

Ronald N. MacGregor is a professor in the Department of Curriculum Studies, University of British Columbia, Vancouver, Canada, and a former Head of Visual and Performing Arts in Education at that institution. He taught at elementary and secondary school levels, in Britain, South Africa, and Canada, before being appointed to the Faculty of Education at the University of Alberta, in 1967. He joined the Faculty of Education at University of British Columbia in 1982. Dr MacGregor has a Diploma in Art from Gray's School of Art, Aberdeen, Scotland; a BEd from University of British Columbia; an MEd from University of Alberta; and an PhD from University of Oregon.

MacGregor is the author of three books, and editor of two collections of readings.

He has published in a variety of scholarly journals. In art education, these include *Studies in Art Education, Art Education, Visual Arts Research, Leonardo, School Arts, Journal of Art and Design Education,* and *Canadian Review of Art Education*. In education, they include *Canadian Journal of Education, NASSP Bulletin, McGill Journal of Education,* and *Assessment in Education*.

He has served as a reviewer and editorial board member for several journals. He is a former editor of Studies in Art Education, and current editor of Art Education.

Lectures and presentations include the Leon Jackman Memorial lecture in Melbourne, Australia, the Tacon Memorial lecture in Toronto, the Gaitskell Memorial lecture in Montreal, keynote presentations for the Canadian Society for Education through Art (CSEA), the National (USA) Art Education Association (NAEA), and the National Society for Education in Art and Design (Great Britain); presentations commissioned by the Getty Center for Education in the Arts; and numerous state and provincial presentations.

Ronald MacGregor is a Distinguished Fellow of NAEA, and a member of its Council for Policy Studies. He was Program Chair for its 1992 national conference. He is 1994-1995 NAEA Pacific Region Higher Education Art Educator of the Year.

He is an Honorary Life Member of CSEA, and has served in that organization as journal editor, vice-president, and contributor to CSEA's National Policy document.

3 WILLEM ELIAS

Developments in Art Theories. Aesthetics and Their Implications for Curriculum Content and Evaluation in Arts Education

I am very happy that Folkert Haanstra gave me the opportunity to tell my story here today. To a certain extent, my doctorate thesis arose from the same issue as his, namely: *The Effect of Art Education on Visual-spatial Ability and Aesthetic Perception: Two Meta-analyses*. Only, I did not deal with 'visual-spatial ability'. This is typically something for empiricists. Most probably it will be important, but I am searching for something else. Rather, my interrogation was directed toward ethics and ran along the lines of: 'What is the effect of contemporary art for someone who wants to explore the world today and who hast lost the support of religion for this exploration? What is the function of visual material?'

I began from the following assumptions. Firstly, that art cannot have an educational effect until one has learned to observe art. If one does not have an eye for the specificity of art, the work of art is a didactic means that is often worse than other means. Secondly, one should separate art education leading to aesthetic perception from art education which leads to producing art either as an amateur or as a professional. This learning to produce art can at best be part of learning how to observe aesthetically within a certain curriculum. Finally, I tried to examine the effect of art from the perspective of contemporary philosophy instead of from the perspective of empirical studies. As the way of philosophers is, I did not study effects, but 'possible' effects. Therefore, I did not employ the very concrete word 'effect', but rather posed the question: what is the function of contemporary art in a time where 'being beautiful' is no longer a criterium, so taste and experience of beauty can no longer be objectives of an educational process.

I did a hermeneutic reading of philosophical texts from some five contemporary movements; that is, Freudian, Neo-Marxist, linguistic analytic, existential phenomenological and structuralist. As a basis for communication of the hermeneutic conversation, Habermas considers a presupposed rationality, between subjects with 'know-how' who presumably produce valid statements. I cannot employ more than this fragile basis, either in support of my research. According to the hermeneutic approach, the subjectivity of the interpreter should not be eliminated as a negative factor. A report of a Dutch inter-academic research project about the fundamentals of humanities shows that contemporary philosophical movements practice hermeneutics in one way or another, or at least they make interpretation play a role which is associated with hermeneutics. The semiotic-rhetoric approach gives as yet the most trouble. The criticism given by this approach amounts to the statement that hermeneutics shows uniformity of thought and has no eye for that which is excluded in interpretation. As many authors which I read belong to this semiotic-rhetoric realm, I tried to adapt hermeneutics in this sense.

Subsequently, a shift occurs from a hermeneutics constituting consciousness to a textual hermeneutics expressing the structure of a multi-layered textuality.

It is not easy to determine the power of each of the afore mentioned movements of thought. One cannot surpass the insights which psychological study of art provides about perception. Gombrich was a pioneer in this respect. His study of the inseparability of reality and illusion in the perception of art confirms the principle of poly-interpretability which we encounter with many philosophers. Gombrich's rejection of the 'innocent idea' and its substitution with an exploring mind trying to locate ambiguities from the desire for meaning inherent to man, is of great importance in the confrontation with art.
What psychoanalysis contributed to the relativization of the perceiving 'I' cannot be neglected. Rightly, Roland Barthes states that neither the 'consciousness of the unconscious' nor the consciousness of ideology can be omitted.
The latter is the most important thought constituting Neo-Marxism. Art shows how society is - because it is a product of this society - as well as how society could be - because it produces antibodies. In keeping with Althusser, Hadjinicolaou in particular points out the ideologizing of the gaze. He maintains that the aesthetic action is nothing but the pleasure the spectator experiences when he recognizes himself in the visual ideology of the work.

Analytic philosophy provides clues to alert us to essentialist thought. Here the use of the concept of art is central. The world surrounding art is more determining than the alleged intrinsic qualities of the artefact, which, according to analytic philosophers, can be reduced to three categories: the mimetic, the expressive and the formalistic. Along the same line, but with a broader outlook on art and enriched with the achievements of American philosophy, Nelson Goodman studied art as a system of symbols. In his view, art is not an imitation of the world: it produces the world.

Existential phenomenology is characterized by a devotion to truth and the conviction that, through art, Being unveils itself by veiling. Although we just recognized the value of linguistic analysis, we believe that the entire body of thought on existence - where ontology of art and a non-theological metaphysics meet as word and image - cannot be pushed aside by pretending that even the formulation of the problem would be superfluous. We believe that phenomenology as no other takes art seriously, and this because it takes the subject seriously. For a philosophy which takes 'experience' as its central notion and which accounts for phenomenal immediacy, it is evident that art assumes an important place.

In our view, the merit of structuralism is that, in the triad artist-work of art-spectator, it draws full attention to the middle term. Freed from the artist's 'intention'; independent of the urge of the spectator to pin art down to one meaning; not subordinated to socio-economic determinants: the work of art as sign is open to a multitude of interpretations, always stemming from its signifier and its specific form, at which the context enriches the possibilities of significations. Art as

sign emphasizes the entire sign character of culture. Of course, one could profoundly criticize these art theories, which would mainly entail saying these theories only accentuate one aspect of the work of art. Therefore, I strung several theories together. The answers philosophers give about possible functions of art are telling, but remain very vague. With the precursor Mukarovsky, we actually already find what we would like to call the synthesis of the answer to our initial question. For this Czech structuralist aesthetic, art is polyfunctional, but the aesthetic function dominates. However, the aesthetic function is the necessary dialectic negation of function in general; in other words, the usefulness of art is zero. Thus, the concept of function implies on no account that art becomes an object of utility. The purpose lies in the object itself. Initially, Mukarovsky understands 'function' as the active relationship between an object and the purpose this object is used for. In a later phase of his thought, Mukarovsky situates the function in the subject. Subsequently, he describes function as the way of self-realization of a subject against the outside world. This seems important because it actually corresponds with how we understand 'education', namely as the process and the degree of individual involvement. If such an involvement cannot not come about, contemporary art has no meaning. Placing a cultural veneer is better on the basis of old values. Polyvalence, as introduced by Mukarovsky, manifests itself clearly in the various authors we studied. It is even possible to classify them under a number of common headings. Thus, for example:

HEDONIC FUNCTION

The perception of works of art provides a indirect, illusionary satisfaction for unfulfilled desires in a sublimated and therefore socially accepted form. (Freud)

The aesthetic action is nothing but the pleasure the spectator experiences when he recognizes himself in the visual ideology of the work. (Hadjinicolaou)

ETHIC FUNCTION

Art has a eudaemonic function. Art should help to live as many people as possible. Furthermore, art has a compensatory, comforting and educational - in the sense of edifying - function. (Wittgenstein)

Art as counter-discourse takes the place of morality, in the sense of the experience of transgression. (Foucault)

SOCIAL FUNCTION

Art as a semiotic fact is more than any other phenomenon able to characterize and to represent a certain era, since the work of art refers to the entire context of what one calls the social phenomena: for example philosophy, politics, religion, economics etcetera. (Mukarovsky)

The role of art in society is not just to provide sensory satisfaction for the consumer. Art is also a guide, a means of education for the surrounding reality. (Lévi-Strauss)
In considering the work of art as an object within a system of objects it obtains an

entirely different function. Then the painting is no longer perceived as an aesthetic object, but as sign through which the collector of art distinguishes himself, either as a member of the group, or as a means to refer to a group with a higher social status. (Baudrillard)

Art provides the possibility of perceiving an exemplary experience. (Habermas)

POLITICAL FUNCTION

Art is the Great Refusal, a protest against what is. The political power of art lies in its possibility to produce liberating images which refuse dominant reality. (Marcuse)

Art cannot change the world, but it can contribute to the change of consciousness and motives of men and women who could change the world. (Marcuse)

The political function of art is the artist's engagement that can be perceived in it as freedom and not as partiality. (Sartre)

CREATIVE FUNCTION

When the artist has finished the work, this is only an 'intermediate state' which the spectator must complete. (Ehrenzweig)

Reality obtains its completion because it is shown in the work of art. (Gadamer)

The work of art is completed by the public. Its wealth lies in the multiple interpretability. (Dufrenne)

The spectator participates on the basis of his being human. He is a virtual artist. The aesthetic movement precisely occurs, because the spectator virtually brings about the unity between structure and event by means of the work of art. (Lévi-Strauss)

The spectator himself is the subject of the painting. The painting is nothing but his multiple description. Each painting is multiplicable by the number of levels of perception. (Barthes)

AESTHETIC FUNCTION

The painting is a trap, a labyrinth for the gaze of the spectator. The gaze of the painter is present in the work because of its specificity. The painting makes the eye gaze. The artist shows something of what has to satisfy the hunger of the eye of the spectator. The real function of the eye as organ is edacity. (Lacan)

The educational function must be a consequence of the creative freedom of the artist and the effort of the public for its degree of difficulty. (Morawski)

Art brings about a revolution in the manner of perception. Because of the novelty of art it breaks the familiar context of perception and the certainty which the senses usually provide. (Marcuse)

Aesthetics as a science of sensuousness can present itself against the often repressive logic as order of reason, at which a core function is attributed to the senses. This must be the basic idea of the aesthetic education. (Marcuse)

The painter makes visible what escapes common perception. Because of this, he confuses familiar categories and obliges us to perceive the world differently also, according to other norms and habits of perception. (Merleau-Ponty)

The work of art is a school for attention. (Dufrenne)

Art teaches us to see. Through art, perception regains its freshness and its power of persuasion. (Dufrenne)

Observing art shows something else. The classified world becomes a turmoil, epistemology itself is undermined, the hierarchy broken. (Barthes)

The function of art consists of creating heterotopies, disturbers of peace. Art questions existing classifications and presents an order, a heterotopic one, situating itself between the empirical order and the theory of the existence of this empirical order. (Foucault)

The value of the modern work of art lies in the singularity of the gesture of the artist, who constructs an oeuvre as a sequence of irreversible inventive moments. The first function (rather than a critical realism) of modern art is rescuing that gestural moment, that intervention of the entire subject, namely the act of painting as a sign of a void. (Baudrillard)

The painting makes the passionately dancing eye see what seeing is. (Lyotard)

THE DOMINANCE OF THE AESTHETIC FUNCTION

Although the work of art wants to provide more information than the aesthetic, the aesthetic information is only based on the wealth of the given form. This constitutes the multiple aspect of the artistic communication. (Eco)

One could also count the study of the inner monologues of the spectators as aesthetics. Art exists from the moment a gaze has the signifier as object. (Barthes)

COGNITIVE FUNCTION

Through the work of art one learns to know the unconscious mind of the artist, because of which one learns something about the unconscious mind of man in general. (Freud)

The cognitive function of art lies in the possibility of showing how the world really is or rather should be in contrast with reality manipulated by power. At the same time this is the utopian aspect of art. Art transmits knowledge in a way which is not possible in another language. (Marcuse)

Art does not substitute scientific knowledge, but still has a very specific relationship with knowledge; in other words, it alludes to reality because it shows us something, makes us observe something, makes us feel something, through which ideology is revealed. Art as allusion to reality is situated somewhere between science as systematic knowledge and ideology as inevitable lie. (Althusser)

In the aesthetic experience, the emotions function in a cognitive way. The cognitive is the major function of art. It prevails before the educational, the hedonic and the communicative function. The cognitive function results from the fact that art is a system of symbols. A work of art makes a world. (Goodman)

The essence of art is to reveal the Being of being. The work of art shows Being as unveiling. (Heidegger)

Art and philosophy are paths to the truth which cannot be reached along another path, such as the scientific one. The way of being of art is truth. (Gadamer)

If we see another world through the work of art, then one realizes that art is not a pleasure arousing sensuous perception, but knowledge. Thus, the world is seen in a new light. (Gadamer)

A painting can say something which one would never hear otherwise and for which one needs an infinite number of words in order to express this.
Contemporary art makes Truth fall apart in interpretations of truths and often in variations of the destruction of truths. In that respect it relates to contemporary philosophy as deconstruction of Western metaphysics. (Derrida)

The function of the 'open' art as epistemological metaphor is to show another view on the world. Or, in keeping with H. Read, the major function of art is to accept the universal multitude science researches, but reduced to the concrete way of being of the Platonic symbol. The 'open' work of art reveals the discontinuity of the phenomena and the impossibility of acquiring a definite uniform image of the world. (Eco)

Art, with the status of nature reserve, is a contemporary form of savage thought. The aesthetic perception has a scientific value because each form of classification is better than chaos. This science of the concrete, based on a logic of sensory perception, exists equally next to the exact one. Moreover, art has a dimension of synthesis, because it is in the middle of science on the one hand and on the other mythical thought (on a speculative level) as well as 'bricolage' (on the practical level). (Lévi-Strauss)

There is no technical difference between learned structuralism and artists' structuralism. Both belong to a mimesis based on an analogy of functions. The function of both the artist and the researcher is the interest of stating the world always in a new manner, as struggle against the stereotype, the myth, the ideology and the doxa. (Barthes)

I tried to approach an issue which inspired me - namely the sense of visual arts for the spectator, considered from the perspective of the educational effect which art could exercise - with the help of insights from well-known contemporary philosophical movements. I began from the premise that the function of art cannot be seen separate from a philosophical context. This presupposition confirmed itself only through my reading, with the immediate conclusion that each philosophical movement has a certain opinion about which kind of art will best fulfill the function in question, often completed by a desire bordering on dogmatism to refuse considering other forms of art as art. Based on the diversity of views, one could decide that no consensus is possible, that the philosophical insights cannot be applied to steering educational objectives. Though, in this postmodern time, the question arises whether consensus is necessary in art education. It is not easy to order the multiplicity - let alone a hierarchy of functions - which recent philosophical movements contribute to contemporary art. However, one thing is for sure: art is polyfunctional.

In an attempt at order, I opt for prevalence of the aesthetic function, followed by the cognitive function. In the third instance, both have to enable precisely the educational function. Then the multiplicity of remaining functions are orientations which have to characterize and differentiate the educational one. I will limit myself to indicating a conglomerate of three functions.

As a starting point I assume that the aesthetic function comes first as conditio sine qua non. By with I mean that the relationship between the work of art and the spectator must be such that the spectator is able to see a minimum of the characteristic of the work of art; in other words, the aesthetic qualities related to the specific design of the work. Below that minimum, the aesthetic function is out of the question. This aesthetic function is a tautology and should remain a tautology, or art is art and should be observed as art if it wants to continue to be art. Once one dissembles this tautological relationship, the aesthetic function stops and no longer does one speak of the function of art, but about the possible functions of an object to be further described. Not surprisingly, deciphering the aesthetic code seems the first thing to do. In passing, I would like to indicate that this aesthetic code should be connected to the category of art. While using the notion of 'aesthetic', I believe that one should distinguish between talking about art and talking about other aesthetic objects (natural beauty, decoration, industrial design, beauty of life etcetera). A transition from the category of contemporary art to other categories is not possible without a break. Contemporary art breaks with the gaze spoilt by charm, it provokes common taste, it lashes the eye. Applied art will initially seduce the public, it will gratify the eye, it will adjust itself to expectations and keep one's attention with little surprises time and again by means of a transparent dialectical play of opposites.

Thus, from an educational perspective, art and applied art or aesthetic education related to art and the training of taste should remain separated, because this kind of education is not the result of the unique relationship between the aesthetic and cognitive function. Applied art does not want to be a cognitive challenge, but a new packaging of familiar information.

Indeed, once the aesthetic function has been fulfilled the cognitive function of art

seems of great importance. The specificity of the aesthetic message will obtain a cognitive function because meaning is produced which cannot be produced in a different way. Observed as a semantic sign, the painting is a complex semantic structure, which acts as a matrix of signification and which can be interpreted through multiple descriptions. These descriptions come about by means of a attentive examination of the artistic design; exercises in perception rather than an example of linguistic skill. Spectators who are not obliged professionally or who are not interested personally in such descriptions also can experience the cognitive function of art in all silence: through interior monologues, or through the visual experience of solidarity between the world the work of art evokes and one's own world. Thus, the work of art becomes a visual sign which will incite reflection, which will provide insight into reality and into how the spectator himself wants to see reality.

In all philosophical movements studied, the cognitive function related to the dialogical coexistence within the triangular relationship spectator-work of art-artist comes to the fore, whether or not mediated by an interpreter or professional in the 'language' of art. Such a consensus is remarkable if one calls to mind the often vehement discussion of the '60s, for example between Neo-Positivism and Neo-Marxism or between structuralism and phenomenology. If one studies the content of the cognitive carefully, one can hardly speak of consensus. Yet, with respect to the cognitive, I believe that mutatis mutandis art fulfills a similar function in all movements. It does not change the cognitive function of art much whether art reveals the Truth, such as the existential phenomenologists maintain, or de-constructs that Truth in an infinity of interpretations, such as Derrida states. This contradiction is precisely its wealth. There cannot be enough attempts to fathom the incomprehensible phenomenon of art. Therefore, at the risk of eclecticism - but this I like to attribute to my preference of the openness of postmodern thought - I combined aspects of five contemporary major movements, each with its own shortcomings.

Art theory inspired by psychoanalysis searches for art but discovers the artist. Art theory directed towards sociology researches the 'hors d'oeuvre' of art, that which is outside the work, the social impact. Analytic philosophy does not examine the work of art but the concept of 'art' and its application. Existential phenomenology views the work of art as a mirror of the subject, in which, however, the spectator searches for himself in the first place. Structuralism wants to comprehend the pure work of art as text, but cannot write down the grammar, since the language of art is simply not that linguistic. Post-structuralism breaks through that urge for syntactic seriousness and realizes that art is precisely the system of signs of that order, in other words, it toys with language. But doesn't art become an anti-metaphysical toy here?

Wrongly, one could hold the view that by emphasizing the cognitive function one will overlook 'feeling'. This is not the case. This has become clear through the triangular relationship with the aesthetic and educational function. Sensuousness

cannot be separated from feeling. And within education, one considers 'training' as referring to the entire person, thus also to his feeling. Furthermore, knowledge and feeling cannot be torn apart."

It only remains for me to formulate some objections about the educational function. As stated before, this function as I understand it relates to the aesthetic and cognitive function, which can be best imagined as a triangular relationship, where a relationship between the two latter is presupposed. Besides, a triangular relationship can only arise if two poles already have a relationship. The relationship between the aesthetic function and the cognitive one seems structurally related to the relationship between form and content, signifier and signified, technique and message. The relationship which the educational function has with the other two poles of the work of art as semiotic fact is different and gives two dimensions to the nature of the educational process. Many authors limit the educative to the relationship with the cognitive function; in other words, to the information which is released as a result of the interpretation, namely the possible educative meaning once one understands the work. Thus, the educative is considered that which is good to know. However, the educational function should be given form in relation to the aesthetic function in the first place. The educational process situates itself here on the level of the sensory effort to comprehend the degree of difficulty of the being-art of the work of art. Both dimensions seem very important and should be present together. In principle, the aesthetic function and the cognitive function cannot be separated, but the spectator can sidestep one of the two poles by drawing all attention to the other aspect. In excess, this is then a form of aestheticism in one direction, where the work of art is perceived as decoration, as refined wallpaper. In the other direction, a kind of didacticism occurs, where the work of art is used as an educational picture.

Perhaps the triangular relationship is clarified if I refer to the structural relationship using the metaphor of 'grammar' within a semiotic system. The aesthetic function is related to the semiotic syntaxis, or to the way in which signs function in relation to other signs. The cognitive function is related to semiotic semantics, which concerns the signs, their denotation and connotation. Then the educational function is related to semiotic pragmatics, namely the relationship between the sign and the user of signs. I believe to be able to extract from this latter an important characteristic of education, use for the 'user'. The aesthetic function characterizes itself by the distance between the object and the spectator. The cognitive function, through the relationship between the object and the reference to elements from the world as the spectator, will interpret these. However, the educational function indicates the use, what the spectator actually has to do with it, how he experiences a certain work of art, what process occurs inside of him and his specific relationship with it. In that sense, 'to use' contrasts with 'to consume'. Consuming a work of art conflicts blatantly with the educational function. Conversely, 'to use' may be understood in line with self-realization, self-development and other concepts with a humanistic slant which indicate that man is able to give a direction to his life. 'To use' is closer to the notion of 'function', which we employed throughout this

lecture, and seems more neutral and less ideological than the 'self' terminology. Therefore, we prefer this notion, because in our eyes art should not by any means serve the Higher Ideal of Humankind and adorn Beauty, for art may as well play an educational role for the small aspects of life, even for that which some ideologies call the negative sides.

Finally, I would like to introduce a model for curriculum development in art education. The manuscript of Michael Parsons' book *How We Understand Art*, which colleague Jos de Mul passed on to me in 1986, really opened my eyes. However, I did miss something. Parsons sketched a development going from the uneducated spectator to someone with a broad view of art. Nevertheless, he did not distinguish between the various ways of seeing related to the gaze of the representatives of the various disciplines which deal with art. In the meantime, Parsons filled this gap in his article *Cognition as Interpretation in Art Education* and specifically in his book *Aesthetics and Education*.
However, I would like to use this international conference to demonstrate the supplement I constructed for Parsons' theory in 1986. I must confess that at that time in Flanders, I had not heard yet of the Discipline-Based Art Education, so I came to a personal view. I did add a fifth discipline, one more than the American model which has the following four: art production, art history, art criticism and aesthetics. In my opinion, the fifth discipline is education, with its characteristic qualities, but without any review of art. In this discipline, art and the great respect for it is obliterated for awhile. The educator has personal skills, where the object of art and the art world are not at the center, but man himself. This discipline departs from the pleasure of things; not the so-called sublime aesthetic pleasure, but common pleasure in what happens around us. In other words, this discipline departs from our personal environment. In that sense, that fifth discipline is an anti-discipline, a protest against drilling, in keeping with Foucault.
In order to represent these five disciplines in a diagram, I will situate them in a pentagonal bar construction, constituted by two pentagonal planes. The five angular points are the cornerstones, as it were, for an educational process. In the one extreme plane, there are support points which are connected to what I want to call practice related to art; in the other extreme, theory is located. Each point of the plane is connected by an axis to a point out of the other plane so, within the same field, a theory-practice axis has been realized. Theory and practice can hardly be separated. Therefore, I placed this inseparable couple on an axis so that some overflow is possible, which illustrates that blending together is the main purpose of the educational process. It is not easy to find concepts which could indicate exactly what the practical side and what the theoretical side is within the same field. The problem with the double axis artist-philosopher is that I see 'artist' and 'philosopher' as two opponents, which are, however, not on the same axis and, therefore, I speak of a double axis. Theoretically, the artist who meets his opponent, the philosopher, should be able to understand the mind. And the other way around: the philosopher should be able to understand matter. However, both are at best in the midfield where practice prevails. It is only possible virtually to meet one's opponent.

The other three disciplines do not relate to virtual opponents according to a double axis system. For example, the axis of art criticism is very simple. The theoretical extreme is the writing art critic, verbalist in a negative sense, essayist in a positive one, but anyhow, more verbal than visual, more words than eyes. In the other direction, there is the curator, the expert, the eyes without words. Against the art historian (as theoretician with regard to history and style characteristics of objects) stands what I would like to call the 'art connoisseur' as the practical extreme, the non-academic, who gained art historical knowledge through private study and through seeing exhibitions. The lowest axis which connects two points of the opposite pentagonal planes presents the role of the art educator. The practical perspective versus the theoretical one is rather clear here.

Thus, the intermediary in the educational process does not have to be a particular specialist from one of the two times five points of support. The counsellor in the educational process can come from any 'corner', he floats within the pentagonal construction. His professionalism is geared towards the constellation of the series of points of support or towards the axis(es) which he manipulates. This would be an ideal model - at the same time to be understood as an unreal educational one - where these two times five angular points will end up in one pentagonal middle plane, in the practical field, in which all aspects will play a similar role at that particular moment.

The intermediary who wishes to plan an educational undertaking has to investigate which of the two times five aspects are present in the members of the target group and to what extent. The model itself is a trial structure for determining the professionalism of the counsellors. Of course, one cannot expect from a counsellor that he will be specialized in all aspects. However, an educational program could pursue this as an objective.
This means that there is not one single mode of aesthetic education, but a great variety of them. Thus, the layperson's understanding of art will depend on the specialism of the counsellor and these are incompatible. The layperson who has developed an artist's eye because he has been introduced to art by an artist will see differently than the one whose eye has been formed by art history, art criticism, art education or philosophy of art. These are five different pairs of eyes, which will be multiplied in addition, because of the combinations of perspectives.
In my view, variety seems an improvement, but an educational program should account for this variety, in order to have in mind a clear profile of the various aesthetic modes of training. These five basic profiles could be situated as a pentagon in the center of the construction, the field of practice. Indeed, it does not make much sense to involve the factual aberrations related to the complete division between theory and practice in the educational process. (For example, the speaker, the wordless expert, the unsystematic connoisseur, the art historian who never saw a work of art, the fully other-worldly artist, the philosopher ignorant of art, the amusement park operator, the pedantic sociological jargon seller etcetera.) Thus, the field of praxis acquires the major position within the model. At this point, I would like to concur with M. Parsons' theory.

I believe that the construction of a pentagonal structure as a model for the various aspects of an aesthetic process of education is a necessary supplement to M. Parsons' five-stage theory of development. My major criticism of this theory is that no distinction is made between the development of the verbal possibilities and possible other developments which may be counted as aesthetic education.

In introducing a theory-practice-axis, I attempted to adjust the verbal element in M. Parsons' theory. In combining both models, one will obtain two axes which make up a coordinate system. Diagonal to the vertical-linear spiral movement of M. Parsons' five stages, I introduced horizontally the pentagonal construction with two times five points of support connected by axes.

Thus, the major purpose of aesthetic education is the achievement of the field where both axes intersect, i.e. the fifth stage of the open view on formal characteristics, the final point of the spiral and the field where one gains insight into the various ways of perception by specialists, i.e. the field of practice, the middle plane of the pentagonal construction.

Lastly, a short note on postmodernism. Many people (not everybody) agree that the avant-garde belongs to the past as well as the modernism connected with it. The avant-garde broke with the rules of ancient art. 'Everything is permitted, nothing is required,' was its slogan. Not surprisingly, being modern meant strictly following the new rules of the avant-garde. Architecture is a good example of this. Here 'modern' meant being as functional as possible. In other words, spaces were evaluated according to their utility. Decoration was considered superfluous and should be excluded. Now, postmodernism believes that the avant-garde rule is too narrow, which could be expected, as each new rule becomes outdated sooner or later. Thus, postmodernism realizes a fusion between innovations of Modernism and elements from previous times. Because of this, art becomes much more comprehensible. The avant-garde always questioned the rules of art itself. It is difficult to keep up with something when the rules change continuously. Conversely, postmodernism applies the various rules of the avant-garde randomly, completed by pre-existing rules. For the general public it becomes possible to catch up. What is explained today, is still valid tomorrow. In other words, one could state that although the avant-garde belongs to the past for the professionals, it just began for the general public. Therefore, a new movement is arising, namely the educational one. This is not a movement in which art advances, but a movement in which man progresses in his relationship to art in a quantitative as well as in a qualitative manner. As previously stated, art should not be understood here as book learning, but as man's increasing involvement with the wondrous world artists presented in the past years and which they will continue to do.

Willem Elias

Professor Dr Willem Elias read classical literature, philosophy, moral sciences, leisure sciences and science development at the Vrije Universiteit of Brussels and adult education and museology at the Rijksuniversiteit of Leiden.

In 1989 professor Elias obtained his PhD in the relationship between contemporary art theory and education from the Vrije Universiteit of Brussels.

Since 1991 he has been a professor at the Vrije Universiteit of Brussels in the department of 'social-culturele agogiek' (socio-cultural theory) and the department of cultural sciences.

He published many articles on art and adult education, aesthetics, cultural policy and also published a handbook on contemporary art theory: *Tekens aan de wand, Hedendaagse stromingen in de kunsttheorie*, the English translation of was issued in 1995.

In addition, professor Elias is an art critic and a member of numerous Flemish advisory committees and juries.

4 DONNA KAY BEATTIE

Objects of Assessment: What Aspects of Learning Effects Do We Assess: Products and/or Processes?

Assessment begins with a rationale for its existence. In designing a blueprint for performance assessment, Stiggins (1987) identifies Step One as the clarification of reasons for assessment. Included in this step are the following questions: What decisions will be made from the assessment? Who are the decision-makers? What use will be made of the assessment results? Who are the students to be assessed? When these crucial specifications have been addressed, then attention is turned toward clarification of the performance to be assessed. What aspect of art learning should be assessed? Product or Process? Or both?

In the past, emphasis in art assessment has been on the product. Reasons for that emphasis are in line with old guidelines developed by Highland in 1955 (cited in Nitko, 1983) for determining the focus of assessment: a) that much or all of the evidence needed to evaluate a performance could be found in the product available at the end of the performance, b) that the product could be measured accurately and objectively, c) that a process in art was indeterminate, and d) that evaluation of process was not practical, requiring too much effort in observing, recording, scoring, or analyzing the processes. In many instances, assessing the product alone has led to interpreting and valuing it from a purely formalistic viewpoint.

Advances in psychology have broadened or changed previously held conceptions of human development and cognition. Types of mental processes associated with thinking are not restricted to an advanced stage of mental development as once believed, but occur in learning in many disciplines at elementary levels (Resnick & Resnick, 1992). Cognitive psychology provides a solid foundation for a shift from assessing the products of learning exclusively to assessing the processes of learning in tandem with the products. Are assessment practices today moving in new directions set by cognitive research? In the view of Sternberg (1991), technology or means of assessment, rather than new ideas of assessment are dominating testing institutions such as Educational Testing Service (ETS). Wiggins (1993) reports that in the National Assessment for Educational Progress (NAEP) pilot project for the assessment of writing, scoring criteria were entirely devoted to traditional formal elements rather than authentic dimensions of writing such as persuasiveness, memorability, and enticingness.

Are we simply assessing, in fancier ways or in performance-based strategies, the same old things? Generally speaking, the answer appears to be 'yes'.

A strong rationale for assessing process in art education is grounded in recent cognitive models and research. Theories of student cognitive processes, dimensions of competence, types of intelligences, creativity, learning strategies, and types of knowledge acquisition have import for an expanded vision of art assessment.

A brief summary of these important contributions is necessary.

STUDENT COGNITIVE PROCESSES

A current conception of teaching is described as the process of leading students to develop, revise, and improve their conceptions and beliefs. (Wittrock (1991) Teachers need to know whether students are learning how to learn and if they are building a repertoire of learning habits. Knowing about students' thought processes enables the teacher to build upon them when developing curriculum, instruction, and assessment. Four types of student thought processes need to be addressed:

- their preconceptions (which determine what will be understandable)
- their learning strategies and methods of acquiring knowledge
- their metacognition or executive processes (i.e., metacomponents such as, ways of monitoring their own comprehension, their own plans of linking new information to previously acquired information, applying what they have learned, and evaluating their use of learning strategies)
- their affective thought processes (e.g., the personal context of a learning situation, certain personality characteristics or attributes such as motivation, anxiety, and the like).

DIMENSIONS OF COMPETENCE

Glaser (1991), building theory from studies by Newell and Simon (1972), who in turn were influenced by the pivotal work on expertise theory (vis-a-vis studies of chess players) of Dutchman de Groot (cited in Glaser, 1991), has identified four dimensions of developing competence that can serve as criterion for assessment. These are:

- coherence of knowledge (i.e., experts are better able to structure their knowledge in meaningful, interrelated 'chunks' [p. 26] rather than fragmented, isolated bits of information, and can access this knowledge more readily)
- principled problem solving (i.e., experts recognize underlying principles and patterns in a problem)
- usable knowledge (i.e., experts progress beyond content or declarative knowledge to procedural to goal-oriented knowledge)
- self-regulatory skills (i.e., experts monitor their own performances).

TYPES OF INTELLIGENCES

The view of a monolithic intelligence has given way to expanded complex theories. Sternberg (1991), Baron (1985), and Gardner (1983) have developed theories which implicate new possibilities for assessment in all disciplines, including the arts. (Chart 1, Appendix, see page 55) describes key components of each theory. Sternberg believes that Baron's theory is too restrictive and Gardner's theory is too expansive.) Of the three models, art education has embraced Gardner's Theory of Multiple Intelligences because of his inclusion of talent domains and equivalence of the various human faculties. Art educators, working within the framework of a balanced-art education program, are aware that the creation of products (in both productive and reflective domains) requires multiple intellectual components.

CREATIVITY

Creativity has once again become a topic of research in cognitive psychology. Moving beyond a rather shallow and stagnant understanding of creativity (e.g., how many different things can be made from a paper clip and a rubber band?) toward analyzing mental operations and characteristics unique to creative individuals, recent cognitive studies tell us that creative people:

- make use of their cognitive processes in more efficient and flexible ways and in the service of goals that can best be described as risky and ambitious (Perkins, 1981)
- are passionate about their work and fully involved in it
- have a strong sense of purpose and goals
- manifest a need to create something new
- are extremely reflective about their activities, use of time, and quality of their products (Gruber, 1985).

Because creativity is so closely linked to artistic creation, reinvestigations into the subject will impact future art assessment.

LEARNING STRATEGIES

Weinstein and Meyer (1991) have created a set of learning strategies which addresses the phenomenon of learning to learn. Several of these strategies, as shown, differ for basic and complex learning tasks:

- rehearsal strategies

basic: repeating, recalling

complex: personalized note taking

- elaboration strategies

basic: creating mental and symbolic images

complex: paraphrasing, creating analogies, making connections

- organizational strategies

basic: grouping, ordering, categorizing

complex: outlining, ranking

- comprehension monitoring strategies: establishing goals, determining its goals are met, modifying practices
- affective strategies: general attitude toward learning, valuing the learning of content.

Although generic in nature, these learning strategies can be studied within the context of art education for the purpose of identifying learning processes and behavior skills intrinsic to the visual arts disciplines. How to read the materials of the disciplines with understanding (particularly in the theoretical discipline of aesthetics), how to direct attention and stay focused in creating and responding activities, how to study art content, how to remember art dates, names, and places (particularly in the discipline of art history), and how to apply art knowledge to everyday living are learning strategies of significance to the art educator. Teaching and assessing art-related learning strategies hold great potential for the mediation of art learning and achievement. When students have been taught to be aware of their thought processes, to use them to organize and understand information, and

to relate them to other subject areas and to life in general, then, and only then, can the transfer of learning between disciplines occur. (Weinstein & Meyer, 1991)

TYPES OF LEARNING ACQUISITION

In the book *Cognition and Instruction* (1986), a compilation of cognitive studies in numerous academic subject areas (e.g., science, social studies, reading, writing, second language learning, mathematics, art, music), co-editor Dillon sought to synthesize important cognitive issues across content areas. One finding was that all writers emphasized three different types of knowledge acquisition:

- declarative knowledge (content and facts of a discipline)
- procedural knowledge (skills and processes of a discipline)
- self-knowledge (metacognitive knowledge about one's strengths and weaknesses or the state of declarative and procedural knowledge).

Another finding indicated certain terms appeared over and over again, particularly, 'process' and 'problem solving.'

Scrutiny of all these cognitive studies reveals desiderata for expanding art assessment. Fifteen guidelines worthy of consideration are:

- assessment should be multi-layered, multiple criterion methods are needed to assess artistic performance
- assessment should address context and authentic situations
- assessment should address expanded notions of intelligence and creativity
- assessment strategies should assess prior knowledge (misconceptions and preconceptions), enabling the art educator to mediate appropriate instruction
- assessment should address what drives students' performance in art
- assessment should address students' awareness of their thinking and how they control and use it
- assessment should address students' learning strategies for understanding art in both creating and responding applications
- assessment should address students abilities to connect chunks of knowledge
- assessment should address how students pursue goals and subgoals of a problem
- assessment should address students' use of declarative knowledge to gather additional information (both declarative and procedural), to evaluate evidence, to weigh alternative courses for action, and to articulate reasoned arguments
- assessment should address students' abilities to move from declarative information (content) to procedural information (modes of inquiry)
- assessment should focus more on synthetic thinking rather than analytic thinking, insightful rather than noninsightful thinking
- assessment should provide opportunities for students to revise and make changes in products
- assessment should address students' abilities to regulate themselves (apportion their time, ask appropriate questions about what they have to do, assess the relevance of their knowledge, and predict the outcomes of their performance)
- assessment should address students' rate of automatizing information.

Few of these guidelines can be met by assessing product alone. A strong case is made for the assessment of process.

A second powerful influence on changing conceptions of assessment is educational reform. The thinking curriculum with emphasis on 'higher-order abilities' such as problem solving, reasoning, inference, constructing personal knowledge, and exercising personal judgment is viewed as the means for achieving educational goals. A thinking-oriented curriculum, according to Resnick and Resnick (1992), is now an educational goal for all students and not just the intellectually elite. This new curriculum stresses instruction aimed at processes of thinking and reasoning. Procedural knowledge should not be viewed as a substitute for declarative knowledge, however; knowledge of processes is crucial for building good declarative knowledge and vice versa. Performance-based assessments, emerging from a constructivist approach to learning, are perceived as tools for modeling ideal processes through engaging students in complex thinking and multi-stepped tasks. The pervasiveness of performance assessments is seen in all aspects of the educational environment, that is the classroom, certification assessments, program evaluation, and for policy monitoring. (Baker & O'Neil, Jr., 1994)

The reconceptualization of curriculum and instruction with emphasis on process raises questions about the product. Should the primary object of assessment be process? Is the old paradigm of product assessment in need of change? Wesson and King (1992), arguing for curriculum-based measurement (CBM) in combination with portfolio assessment in general education, believe assessing the product exclusively does not fit the new curricular agenda of learning more than just declarative knowledge or facts. But what about the art product? Is it no longer viable for art assessment?

An element of the entire situation of art, according to Abrams (1953), is the product or object per se, whether its form is tangible, conceptual, or temporal. The product is a result of numerous types of thinking and feeling by the creator or artist. Disciplines have emerged out of a need to deal with that product. Art critics deal with the product by perceiving, describing, analyzing, interpreting, and judging it. Art historians deal with the product by studying, interpreting, classifying, judging, and preserving it. Aestheticians deal with the product by asking questions about its creation, its worth and value, and responses to it; in short, the very nature of it. Thus, a wide, rich, multifaceted context has developed around the product. Current philosophical theories of postmodernism and of art education present a vision of the art object and its expansive context as inextricably linked. Art criticism, art history, and aesthetics cannot be understood without the art object that informs them. Personalized dimensions of these three disciplines, therefore, require creation of an art object. A holistic understanding of art cannot be evaluated without the product.

Properties of the art product-sensory, formal, expressive, technical (Broudy, 1966) and qualities such as craftsmanship and integrity cannot be evaluated without assessing the final product. Actual outcomes of different types of thinking and feeling cannot be understood without assessing the final product. Product and process define and inform each other. In a sensitive assessment of the whole context of art knowledge, neither can be omitted. Ignoring the product in an art assessment is not unlike ignoring the illness in medicine and focusing only on the symptoms. The true answer to the product question, however, relates to the

clarification of the performance that will be evaluated. What is the reason for an assessment? If one particular aspect of art knowledge is to be studied, then the assessment can be fragmented rather than holistic. The key question to be answered is: Where is the best evidence of proficiency found for the purposes of the assessment?

To enable the art assessment designer to clarify a performance, the processes and products of aesthetics, art criticism, art history, and art studio need to be outlined. Stiggins (1987) emphasizes that no assessment specification is more critical to the quality of performance assessment than stating appropriate performance criteria. Chart 2 (Appendix) lists important processes and products intrinsic to each discipline, which can be observed and scored.

Other processes and attributes worthy of consideration as performance criteria cross the four visual arts disciplines. They are: a) basic skills (e.g., writing, communicating, reading), b) metacognitive skills (e.g., monitoring, planning, controlling, reflecting, evaluating one's use of learning strategies), c) social skills (e.g., collaborating, working independently, co-operating), and d) affective skills (e.g., appreciation, self-confidence, persistence, motivation). Determining which processes, products, and dispositions to assess requires thoughtful consideration. Once determined, products, processes, and dispositions need to be operationally defined with descriptions of achievement levels (i.e., steps in the creation of a scoring rubric).

A blueprint for performance assessment also identifies exercise formats suitable for observing and evaluating product or process. Numerous effective strategies exist. The most popular examples are: portfolios, journals, observation strategies, checklists, and rating scales.

The portfolio has long been the method of assessment for the artist. Its old look and utility, however, can be limited and underestimated. Too often, the art portfolio resembles an unstructured dumping ground of motley unrelated images. Other disciplines and content areas (e.g., writing, reading, mathematics, engineering, teacher education, special education) have adopted the art portfolio and are making important gains in reshaping its image. The portfolio is a successful tool for assessing both processes and product. Such a portfolio is defined by the author as an 'expanded portfolio'. (Beattie, 1995a) 'Expanded' is not defined as a long-term or longitudinal portfolio; the smaller portfolio or the 'mini-portfolio' (Beattie, 1994) can also be an expanded portfolio. Length of evidence-collection time is not a defining feature. The expanded portfolio is one that contains evidence about many different dimensions. It provides the art educator with a wealth of data for challenging any questions raised about the rigor of art education. Among the characteristics of the expanded portfolio, central to this paper, are the following:

1 The expanded portfolio is a structured portfolio with guidelines for submitting significant evidence.

2 The expanded portfolio provides significant evidence of idea (problem-seeking, problem-identifying, and problem-setting process with criteria for possible solutions), process (problem-solving), and product (problem solved). This

characteristic encompasses the wide variety of skills previously identified as intrinsic to the various visual arts disciplines.
3 The expanded portfolio provides significant evidence of other skills (e.g., metacognitive, social, affective, basic) as they relate to art learning.
4 The expanded portfolio provides opportunities for the student to select and review submitted evidence.
5 The expanded portfolio provides opportunities for the student to construct meaning with respect to submitted evidence, and to interpret and reflect upon that evidence.
6 The expanded portfolio provides opportunities for the student to monitor and chart his or her own progress.

Several examples of activities which address these portfolio characteristics are described. Students need a set of guidelines for submitted evidence. Chart 3 (Appendix) is a proposed possible set. (A table of contents for the portfolio can be developed by the student from this set of guidelines.) The set or checklist addresses cognitive dimensions valued for assessment: student thought processes, dimensions of developing competence, different theories of intelligence, learning strategies, types of knowledge acquisition, and the latest thinking about creativity. The guidelines also make possible a negotiated assessment between teacher and student of important processes as well as product.
A blank chart of skills, to be filled out during the creation of the product, can be attached to the inside of the portfolio. Periodic class discussions and one-on-one teacher/student discussions about the different kinds of skills manifested in the art tasks provide both teacher and students with information for identifying, analyzing, and assessing the student's internalized and personalized process habits.
Annotated portfolio techniques are central to the expanded portfolio because they encourage students to 'show and tell' what they know and think about with respect to submitted evidence. By employing a technique such as surrounding the image or written report with a wide margin for writing and dialoguing with others, students can come back to their annotations at a later time for rethinking, revising, or rewriting. Changes in thinking and the work process are documented. Chart 5 (Appendix) is an example of an annotated technique.
An assessment strategy designed to identify performance problems can also be implemented within the context of the expanded portfolio. 'What's The Problem?', a simple strategy using Post-It notes and coloured pencils (Chart 6, Appendix), assesses students' ability to associate specific problems with underlying principles for solving them.
Students need to be involved in charting their progress and reflecting on that progress, and the 'Art Topography' is an example of such a chart. The 'Art Topography' makes visible the peaks (benchmarks) and valleys (problem areas) of performance in the art disciplines. A progress chart aids the scoring process, whether the portfolio is scored holistically, analytically or by a combination of both.
Journals, diaries, or learning logs have utility for assessing processes in all four disciplines. A student's personal journal filled with thoughts, ideas, questions, research, processes, sketches, and studies is a marvelous tool for studying

declarative, procedural, and self-knowledge. Students learn first-hand that the four visual arts disciplines are grounded not only in content or declarative knowledge but also in methods of inquiry or procedural knowledge. Moreover, a journal serves both formative and summative assessment needs. Students should be encouraged to write in their journals daily, twice a week, or once a week, depending on the characteristics of the particular art program. Limit the time spent in writing (e.g., the first five or ten minutes of the class period), so as not to overwhelm or bore students. Give guidelines for journal entries. Inform students of evaluation objectives and criteria and when journals will be periodically scored. Allow personal comments that will not be evaluated. Be selective in what is to be assessed, looking at specific dimensions at different scoring sessions.

Double-entry journals (written on divided notepaper) are also very effective. On one side of the center line are the student's entries. The other side is for teacher, peer, parent, or student self-reflective comments pertaining to the original entries.

Observation strategies are particularly valuable for scoring students' processes. Recording the data in anecdotal records provides a rich source of qualitative information regarding performance behaviors and changes. A type of anecdotal record is seen in Chart 7 (Appendix). Video and audio taping make larger-scale observations possible, providing data that can be included later in anecdotal records. If a skill, process, or technique of a discipline is to be assessed, then observations can be conducted by setting up different work stations. Tasks are conducted at various stations with students visiting the stations in a round robin fashion. The teacher and several helpers observe and mark a checklist or rating scale as to the presence or absence of certain behaviors and characteristics or to the quality, degree, or extent of behaviors, respectively. Students need to be aware, however, of the whole performance and not of just the isolated parts. Observations need to be recorded, mental record keeping is unreliable.

Checklists and rating scales appear to be popular choices for evaluating performances for the following reasons: a) they apply equally well to assessments of process and product, b) they can be tailored to many types of performance criteria, and c) they provide a convenient means for recording data and summarizing and comparing assessment results (Stiggings, 1987). A scoring rubric, so commonly discussed in the literature of assessment, is an example of a rating scale with both numerical and verbal anchors and with achievement dimensions of the performance, each explicitly defined. An example of a rating scale appropriate for observations in the classroom is the Circle Graph Rating Scale (Chart 8, Appendix), which when reduced to note card size can be handled quite efficiently by the teacher or student.

VALIDITY

Assessment of either process or product requires critical scrutiny of the soundness of the interpretations that will be made from the derived score. Questions and issues surrounding the appropriateness, meaningfulness, and usefulness of inferences from scores are concerns of validity. Although validity is currently viewed as a unitary concept, the scope of questions and issues is broad subsuming all of the historically discrete validity types (e.g., content, criterion-oriented, construct,

face, and the like). Several important criteria for addressing validation of performance-based assessments are briefly described in this paper-relevance, content fidelity, exhaustiveness, equity, straightforwardness, consequences, transfer and generalizability.

RELEVANCE

Whether the object of assessment is process or product, both foci need to be concerned about the goodness of fit between the purpose for the assessment and the selected assessment task. For example, if the purpose of the assessment is to gain evidence of the processes of art criticism (i.e., the student's ability to respond critically to art works vis-a-vis description, analysis, interpretation, judgment), then the selected task must be the best possible measure for providing the most accurate score for those processes.

CONTENT FIDELITY

Content fidelity is concerned with the faithfulness of the task to the domain or object that it purports to assess. If procedural knowledge is to be evaluated, then the selected task must cover the dimensions of the processes adequately. On a broader level, if holistic knowledge of an art discipline is the object of assessment, then examined processes and products per se must sufficiently represent the art discipline's methods of inquiry or content, respectively. A review of the literature in the field and discussions with peers are means for determining most valuable knowledge.

EXHAUSTIVENESS

A single process or product is not exhaustive of an art discipline's methods of inquiry or content, and to infer anything about broad knowledge in a discipline from one process or one product is problematic. Neither is a single score on a process a strong indicator of knowledge about that process. Several measures increase the chance of determining an accurate score and making an appropriate interpretation.

EQUITY

A powerful case needs to be made that the task for assessing process or product is clearly unbiased and fair for all students involved. Aspects of content and format might favor some group over another. The emphasis on written or oral descriptions of learning processes in reflective journals may be unfair to disadvantaged students, minorities, or non-standard language speakers. A gender bias might also occur. Females tend to be more reflective than males, therefore, reflecting on their processes might be easier for them. An example of a contextual bias that might occur with respect to the evaluation of an art product stems from different emphases art educators place on product assessment criteria. In one context, the teacher may consistently emphasize formal criteria, while in another context, value is placed on conceptual and affective criteria. Critical to the assessment of procedural knowledge is the opportunity afforded all students to learn and practice methods of inquiry. Peer review of the task and scoring measures prior to

assessment and analysis and discussion of responses after assessment help to identify points of bias. Performance-based assessments, regardless of process or product focus, are perceived as a white middle class phenomenon, promoted by high achieving individuals, who are disproportionately women. (Hoover cited in Baker & O'Neil, Jr., 1994)

STRAIGHTFORWARDNESS

Straightforwardness, as it relates to either assessment of process or product, is important to consider. Every aspect of the task (format, directives, standards, scoring criteria) should be transparent enough for students to understand what is expected of them. Peer review and pilot testing of tasks help to uncover problems of transparency

CONSEQUENCES

Assessing only processes or products or one consistently more than the other could have serious consequences for the art program. The art curriculum might be changed to align more closely with the emphasized object of assessment. Moreover, the methods by which each is assessed could bring about a distortion of teaching with positive or negative results. Task format might discourage other viable methods of teaching concepts and skills. By studying the impact of previous similar assessments on curriculum and instruction, the task writer can compensate for intended and unintended results.

TRANSFER AND GENERALIZABILITY

Generalizing information about a particular performance-based task to a larger field is very difficult because performance-based tasks tend to be highly context-specific. Repeated assessments of the same processes in different task situations or of several products help to substantiate broader generalizations.

The above-mentioned criteria neither imply a hierarchy nor are exhaustive. Other important validation concerns or criteria which need to be addressed in an assessment are: cognitive complexity, meaningfulness, cohesiveness, directness, cost and efficiency, data availability and practicality, and contextual. (This complete proposed set of validation criteria are discussed in an unpublished paper by Beattie, 1995b.)

Freedom to develop complex and ambiguous art tasks and to respond to such tasks as one so chooses lies at the heart of artistic creation, and yet, this freedom frequently works against maximizing standardization and reliability. (Wiggins, 1993) Validity and reliability, a necessary twosome, can become a problematic pair. Wiggins claims that validity is too often sacrificed for reliability in assessments. More attention is given to the precision of resulting scores than to the 'intellectual value and contextual grounding of the challenge'. (p. 208)

RELIABILITY

That much attention is given to the precision of scores is not without good judgment. The self-consistency of scores is a major reliability problem. Inconsistency

in scoring is one source of error that impacts the assessment of both process and product. The properties of processes are more difficult to ascertain, describe, and observe than are those of products. Scorers need to be well versed in process properties and well trained in observation techniques. Scoring criteria should be clearly defined for the rater. Having more than one rater score the performance is a straightforward method for addressing scoring reliability, and several measurements provide more accurate data than one. Other sources of measurement error stem from psychological and physical factors. Students may not be well-prepared psychologically for the measurement activities, and subjecting the student to several measurements is likely to change the individual. The assessment location and procedure might be destructive to best performance. Administrative constraints often compress data gathering into shorter time intervals than is desirable (Feldt and Brennan, 1989). The assessment of processes is more likely to be affected by psychological and physical factors, because measuring them usually takes place as the processes themselves are unfolding.

ASSESSMENT BLUEPRINT

For an assessment of process and product to be successful, a clear sense of the key dimensions of a performance-based assessment is needed. Based on an expanded conception of art education assessment and on a model set forth by Stiggins (1987), a guide or blueprint for a performance-based art assessment is proposed in Chart 9 (Appendix).

SUMMARY

In summary, the objects of assessment can be either process or product. Recent research in cognitive psychology, in educational and teaching theories, and the current educational reform initiatives provide a strong basis for a paradigm shift from emphasis on assessing product exclusively to assessing process and product in tandem. Art education should also be responsive to this new direction in assessment, but not irresponsibly with a lack of knowledge or respect for the problems inherent in moving into uncharted territory.

APPENDIX

Chart 1

Theories of Intelligence

Psychologist	Theory	Description
Sternberg	Triarchic Model: Componential Subtheory	Three components or types of intelligence focused on the internal world: (a) **metacomponents** (executive processes used to plan, monitor, or evaluate one's problem-solving), (b) **performance components** (nonexecutive processes used to implement the instructions of the metacomponents, and (c) **knowledge acquisition components** (processes used to learn, comprehend and remember information)
	Experiential Subtheory	Relationship of intelligence to experience. Two means that best measure intelligence are: (a) **applying components to relatively novel tasks or situations** and (b) **components are in the process of becoming automatized**
	Contextual Subtheory	Relationship of intelligence to the external world. Three functions of intelligent behavior best show application of intelligence: (a) **adaptation to existing environments**, (b) **shaping of existing environments into new environments**, and (c) **selecting new environments**
Baron	Theory of Thinking	An episode of thinking has four phases and phases contain or require still other episodes of thinking. Four phases: (a) **search for possibilities** (choosing among potential possibilities, possible answers to questions are implicit in goals, come from memory or from outside), (b) **search for evidence** (affected by goals, possibilities under consideration, evidence already available, different types of evidence--signs, events, reasons, examples), (c) **use of evidence** (new strengths are assigned to the possibilities), (d) **search for goals** (searching for new goals, creating subgoals, identifying discrepancies, creating auxiliary problems, changing goals)
Gardner	Multiple Intelligences	Seven types of intelligences: **verbal-linguistic** (mastery of language operations), **logical-mathematical** (mastery of concept formation, patterns, relationships), **musical** (mastery of musical elements), **visual-spatial** (mastery of visualization processes), **bodily-kinesthetic** (mastery over bodily motions), **interpersonal** (mastery of social distinctions and interactions), and **intrapersonal** (mastery of internal aspects). Each person has all intelligences to some degree.

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Chart 2

The Visual Arts Disciplines: Product and Processes

Discipline	Product	Processes
Aesthetics	Theory Development	observing and listening puzzling and questioning setting a problem analyzing arguments applying known information to new situations making and judging value judgments comparing reasoning extending premises inferring describing defining evaluating presenting a position or argument (oral or written)
Art Criticism	Critical Review	observing describing explaining characterizing analyzing seeking evidence and counterevidence interpreting comparing giving reasons evaluating making and judging value judgments presenting a position or argument (oral or written)
Art History	Art Historical Report	observing perceiving setting a problem analyzing seeking evidence and counterevidence describing classifying interpreting comparing giving reasons evaluating making and judging value judgments presenting a position or argument (oral or written) preserving
Art Studio	Art Object	generating ideas setting a problem observing recalling analyzing classifying and discriminating exploring and experimenting selecting criteria for possible solutions extrapolating findings to other situations considering alternatives reviewing and evaluating making and judging value judgments reordering and revising synthesizing reflecting evaluating verifying and exhibiting

*Please note, the chart is neither inclusive of processes nor seeks to present a formal hierarchy.

Chart 3

Checklist for Portfolio Evidence

Please place a check beside all evidence that you have included in your portfolio.

1. Please include in your portfolio a letter to the teacher introducing your portfolio, your purpose, and your goals.

_____ introductory letter explaining your portfolio, your purpose in creating it, and your goals pertaining to it

2. Include in your portfolio all materials that relate to solving your assigned problem.

_____ notes on the way you think about the problem, your interpretation of it, and how your thinking changes

_____ "brainstorming" ideas for solving the problem

_____ resource or research materials and sources that relate to helping you solve this problem or give you different directions

_____ notes on the ways you go about solving the problem (your personal problem-solving strategies)

_____ sketches and studies or rough drafts that help you practice for or determine the solution(s) to the problem

3. Include in your portfolio your final product and specific materials that relate to it.

_____ final product (or evidence of it)

_____ description of your attitude toward completing this task (your interest, motivation, anxiety, and the like) and your feelings about the final work

_____ self-evaluation and judgment of the process you went through to arrive at the final work

_____ self-evaluation and judgment of the final work

_____ argument (oral or written form), taking into account the total situation and the above-stated guidelines, that supports your position on the final work. Present your main point clearly with reasons and possible rebuttal for prospective challenges.

Chart 4

SKILLS CHART

Basic Skills	Critical Thinking Skills	Meta-Cognitive Skills	Interpersonal/ Social Skills	Intrapersonal/ Affective Skills	Discipline Specific Skills Art Production	Discipline Specific Skills Art History	Discipline Specific Skills Art Criticism	Discipline Specific Skills Aesthetics

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Chart 5

Annotated Portfolio

Leave a three-inch margin around your art work or place a larger sheet of paper under your image to create a margin. In that margin, address the three items listed below. Indicate in some way (e.g., an arrow, Post-it Note, color-coded label dot) the part of the work that is appropriate to your discussion of the item.

1. Select three "I like this part" areas in your work. Explain why.

2. Select one "I don't like this part" area in your work. Explain why. Suggest a solution.

3. Write a "Help me!" question requesting help or advice in solving an area that is problematic for you.

When you have finished, give your art work to a peer, teacher, or parent to make critical comments in the margin pertaining to yours.

Chart 6

WHAT'S THE PROBLEM?

Identify important underlying principles in the discipline that is being assessed. For example, if art production is being assessed, then some underlying principles might be:

- 1. Line has emotional and expressive qualities.
- 2. Two-point perspective shows the recession of objects as seen from an angle.
- 3. Line, color, and other elements create the illusion of various textures.
- 4. Expressionist work communicates with force and conviction the feelings, ideas, and emotions of the artist.
- 5. Unity is achieved by organizing the elements into a cohesive whole.

Each principle is color-coded. Students determine which principle is the basis of a problem (if one exists) in the product. On a Post-it Note, they mark the appropriate colored dot and place the note directly on the problem area. Comments about the problem and ways to solve it can also be written on the Post-it note.

Chart 7

TEACHER'S LOG

TEACHER _____

STUDENT _____

==========

To profile student behavior, the following characteristics can be logged:

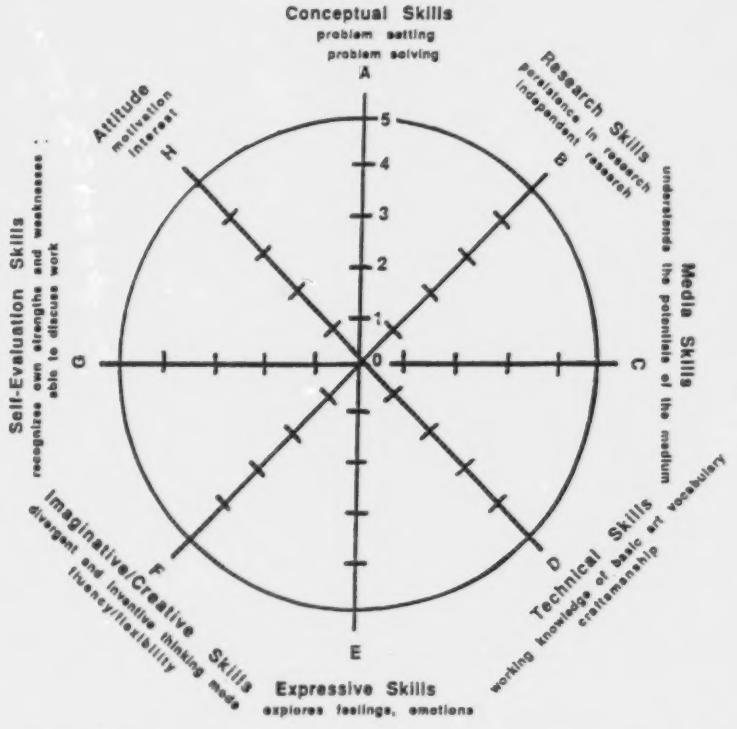
- Shows interest in art class and in the visual arts. *(A)
- Is receptive and cooperates with others. Respects others' art work. (A)
- Is self-motivated, self-starting. (A)
- Is willing to explore and experiment. (A)
- Uses art vocabulary.
- Participates in class and group discussions and activities.
- Uses original solutions in expressing ideas and experiences in art work.
- Completes assignments, shows persistence, and works through difficulties.
- Uses learned skills and concepts in new assignments.
- Work shows appropriate level of complexity in concept, subject matter, and arrangement.

*(A) = attitudes and values in the Affective Domain

==========

DATE	COMMENTS

Chart 8



Achievement Levels

0 = SAD! - no attempt is made
1 = Not Good - an attempt is made, but results are poor
2 = Not So Hot - results are below average
3 = OK - results are average, but sufficient
4 = Good - results are above average and very satisfactory
5 = RAD! - results are outstanding

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Chart 9

Performance-based Art Assessment Blueprint

Clarification of the Purpose(s) of the Assessment

Step 1. Describe the rationale or purposes for the assessment.

Step 2. Describe the decisions that will be made from the assessment.

Step 3. Describe the decision-makers.

Step 4. Describe the examinees (grade levels, numbers, characteristics).

Clarification of the Domain to be Assessed

Step 5. Describe declarative knowledge (content) and procedural knowledge (methods of inquiry) of the domain to be assessed.

Step 6. Describe metacomponents (executive processes) of the domain.

Step 7. Describe key cognate skills of the domain (basic, affective, social, and the like).

Clarification of the Performance to be Assessed

Step 8. Describe the performance.

Step 9. Describe the processes and products of the performance exercises.

Step 10. Describe achievement levels of the performance.

Clarification of the Performance Exercises

Step 11. Describe exercises.

Step 12. Describe exercise stimulus materials.

Step 13. Describe time, implementation procedures and directives, environment, and protocols needed for exercises.

Clarification of the Scoring Plan

Step 14. Describe type of scoring (holistic, analytic, combination).

Step 15. Describe scoring strategies (rating scale, checklist, portfolio, journal, and the like).

Step 16. Describe scorers or raters of the performance.

Step 17. Develop a scoring rubrics.

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Donna Kay Beattie

Dr Donna Kay Beattie, PhD, received her Doctor of Philosophy Degree in Visual Arts Education from the University of Kansas. Her doctoral work was completed in The Netherlands, where she analyzed the Dutch national system of assessment in the visual arts at the VWO level. Dr Beattie has taught in the public schools of Kansas (elementary education and secondary visual arts education) as well as at the university level.

She has published articles in both Studies in Art Education and Art Education and contributed materials for three books pertaining to assessment. She has presented many papers on assessment and aesthetics at state, national and international conferences. She is involved in workshops for art educators throughout America on the topics of assessment and aesthetics.

Dr Beattie served as Assessment Chairman for the Visual Arts for the 1997 National Assessment for Educational Progress (NAEP) Arts Education Assessment Consensus Project. She serves as advisor in the visual arts for a new program in children's television from The Owl Center for Children's Film and Television in Toronto, Canada. She also serves on the National Art Education Association (NAEA) Published Materials Committee, which oversees all professional materials published by the NAEA. She is Director of the Getty-Sponsored Advanced Professional Seminar for Study of Discipline-Based Art Education at Cranbrook Academy of Art in Michigan.

At Brigham Young University, Dr Beattie is Head of Art Education. She has developed graduate and undergraduate courses in aesthetics and assessment as well as two Study Abroad Programs. She has won several research awards and grants including the prestigious 'Excellence in Research Award' at Brigham Young University, only the second woman in the College of Fine Arts and Communication to do so. She also won the 'Professor of the Month' Award (an award voted by the students), and 'The World is Our Campus' Award (an award for professional involvement at the international level).

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5 PAUL HEKKERT

Naive Versus Sophisticated Viewers: The Effects of Learning and Experience on Aesthetic Perception and Appreciation

If one wants to assess the effects of art education on aesthetic perception and aesthetic evaluation, one must understand first in what respects does an educated viewer differ from a non-expert one?

First I will give an overview of psychological views on the differences between an experienced viewer and a novice one and I will make occasional references to empirical studies on that matter. Second, I will present two or three of my own studies and I will close with some thoughts on the relevance of empirical research to art education.

First, to link up with the previous speaker, a quote from another philosopher, Mr Wittgenstein:

'People often say that aesthetics is a branch of psychology. The idea is that once we are more advanced, everything - all the mysteries of art - will be understood by psychological experiments. Exceedingly stupid as the idea is, this is roughly it.'[1]

Such a criticism I have heard quite often and it seems to be based on the assumption, appealing to the common sense of a lot of people, that aesthetic phenomena do not lend themselves to scientific pursuit. Moreover, as the quote of Wittgenstein implies, scientific aesthetics may be under the suspicion of pretending to unveil all the mystical powers of art and of aesthetic experience. Those objections are however, in my opinion, inappropriate. Speculative aesthetics, philosophy, art criticism, posed quite different questions than psychological aesthetics or empirical aesthetics and, considering the goals, concepts and methods of this latter discipline, the theories and findings stemming from it are far from trivial.

As mentioned in the beginning, I will start with a discussion of the psychological theories that address the problem of expertise in the arts. To this end, I distinguish four different psychological levels at which differences between experts and non-experts become apparent. These levels are: the physiological level, the perceptual level, the cognitive level and the evaluative level. This distinction does, of course, not imply that these levels are unrelated. In fact, changes at one level will always precede or follow from changes at another level. But, for the sake of conceptual clarity, this distinction is revealing.

First, let us look at the physiological level. The psychologist Berlyne[2] started from the intriguing question, why do humans seek contact with biologically neutral stimuli with no manifest ecological importance, such as works of art? Berlyne looked upon this behaviour as instigated by the need for information and stimulation. Humans (and other higher animals) seek out stimulation that tax the

nervous system to the right extent when the available stimulation is either too easy or too difficult. Berlyne distinguished two types of exploratory responses which could be evoked to neutralize this condition of discomfort, specific and diversive exploration. Specific exploratory responses arise when the available information is inadequate and leaves us with uncertainty. We start to look for specific information out of perceptual curiosity (to dispel uncertainty) or epistemic curiosity (to acquire knowledge). In other circumstances, for example in a state of boredom, we seem to search for stimulation that can afford novelty, change, complexity or variety.
Berlyne further argued that hedonic effects of stimulus patterns are due to their arousal potential, the amount of attention or excitement that a stimulus can produce. Preference is related to arousal potential according to the famous Wundt curve, i.e., in an inverted U-shaped manner (Figure 1). In various experiments it was shown that learning or experience affects the optimum arousal level; expert viewers prefer higher levels of complexity, uncertainty and incongruity - variables that contribute to the arousal potential of a stimulus - than non-experts. It has also been shown that for highly creative people there is an initial decrease in preference, a dislike for simple stimulus patterns, followed by an increase of preference with a maximum at a higher level of complexity, novelty, uncertainty, etcetera.

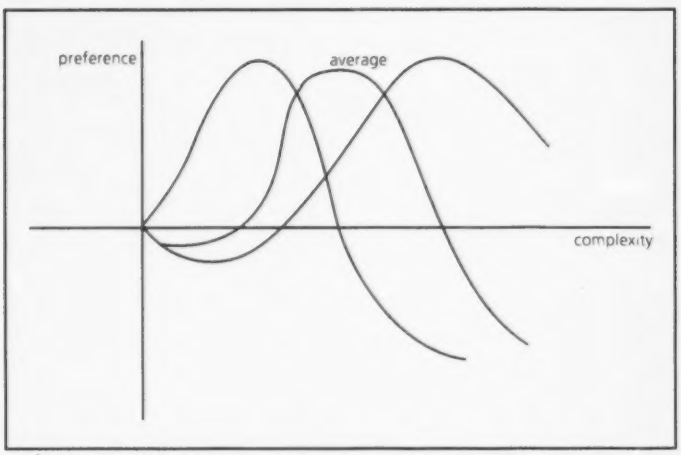

Figure 1: The hypothetical Wundt-curve for naive and experienced observers.

Second, differences between inexperienced and experienced viewers can also be described at the perceptual level. Various authors have taught us that perceptual learning progresses towards better and better differentiation and selection, the ability to extract relevant information and ignore irrelevant information. Experts are better in discovering the distinctive features, the features that are relevant for the particular domain in which they are active, to which the novice is insensitive. Experts make finer aesthetic discriminations; they attend to texture, formal properties, and technical elements in the artwork. With regard to perceptual differentiation and selection, experts are also better in finding the higher-order structure, the relations between the distinctive features, which can be conceived of as the composition of a work, its stylistic and Gestalt qualities.
Empirical research that addressed this particular aspect of perceptual learning can

be found in eye movement studies. Eye movements have been studied to measure the exploratory activity and looking behavior of an observer. Eyes are 'the mirror to the soul'. Eye movements can be used to obtain valid measurements of a person's interests and cognitive processes; the intentions, purposes, motivation, knowledge, etcetera, of an observer.

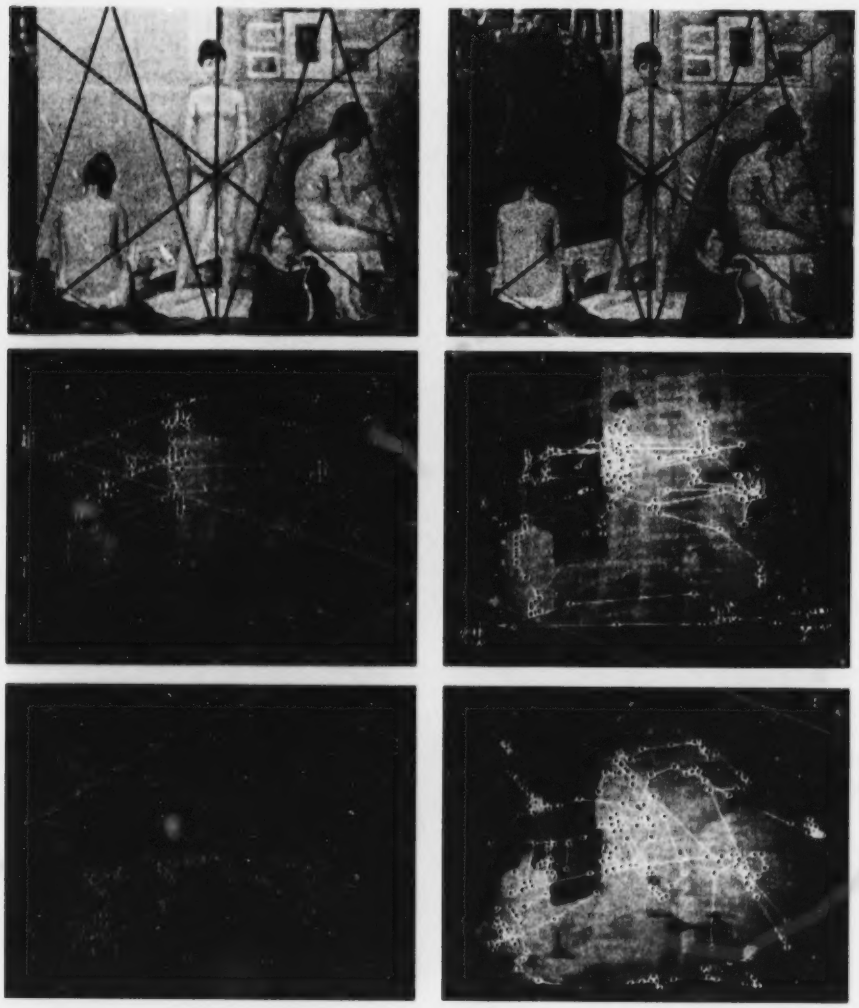

Figure 2: Scanning patterns of trained and untrained viewers of Seurat's *Les Poseuses* in its original and altered form (from Nodine, Locher, & Krupinski, 1993).

In Figure 2, the pattern of eye movements while viewing a painting by Seurat is presented. In this scanning pattern you can see lines that represent the saccades, the small jumps of the eyes, and you can see dots, representing fixation patterns or gaze duration. The saccades can be viewed as representing diversive exploration - remember the work of Berlyne - the global viewing of a pattern to discover relationships between various elements. The clusters of fixations point at moments of specific exploration, to gather specific information about a pattern.
In a recent experiment by Nodine, Locher and Krupinski these eye movement

patterns were used to study the difference between the perceptual activities of experienced and naive observers.[3] Does formal art training change the nature of the visual exploration of art? They started from the assumption that art education teaches principles of balance, proportion, and symmetry, and these principles are regarded as powerful forces in pictorial composition. Artists have faithfully applied these principles in their work and, therefore, the researchers started to distort the balance of real paintings. One of the paintings they manipulated is *Les Poseuses* by Seurat (see Figure 2). They removed the partial view of another painting by Seurat (*La Grande Jatte*) which was originally in the upper left corner to disrupt the balance. On the right you see the balanced, original versions and on the left you see the unbalanced altered versions. The top two pictures are the used reproductions, the middle two pictures are the scanning patterns of the trained viewers, the lower two of the untrained viewers. Among other things, they found that trained viewers spend relatively more time in diversive exploration when viewing altered paintings, while untrained viewers performed just the opposite. Note the sweeping eye scan (the long lines) for the trained viewers in the unbalanced condition (middle left) compared to the small little jumps of the untrained viewers (lower left).

The study also demonstrated that trained viewers concentrate on thematic patterns among the compositional elements, including background features, whereas untrained viewers concentrated on repesentational and semantic elements in the picture, central or foreground features. They neglected balance and harmony. In a recent book, Solso concluded on the basis of this type of research that 'art training seems to teach viewers to appreciate paintings not because "they are good to see", but because "they are good to think".[4] Beauty is less in the eye and more in the mind of the beholder.' His conclusion again stresses that behind those eye movements, there are cognitive structures, cognitive networks or patterns, which direct and guide our perceptual activity.

This brings us to the third level at which experts differ from non-experts: the cognitive level. Experts have developed different, more specialized and advanced knowledge structures that guide the perception, recognition and evaluation of art. When we look at something in the outer world, we ask ourselves the question, what is it? According to cognitive psychologists, especially those in the field of classification theory, we have categories for the things in the world around us. The idea is that categories are structured around a prototype, the central tendency or best example of a category. Experts have specialized categories for art or artworks, whereas non-experts only have categories for the real-life things, the things in our everyday world. This difference is represented in a picture of Neperud (Figure 3). On the left you see a small curve which represents the inexperienced viewers' knowledge structure or category for portraits.[5] Inexperienced viewers have only an idealized image, a prototype of portraits which directly refers to the images of the faces of the people around them, whereas experienced viewers have prototypes for different art styles, a typical portrait for a cubist painting, a typical portrait for a surrealistic painting, etcetera.

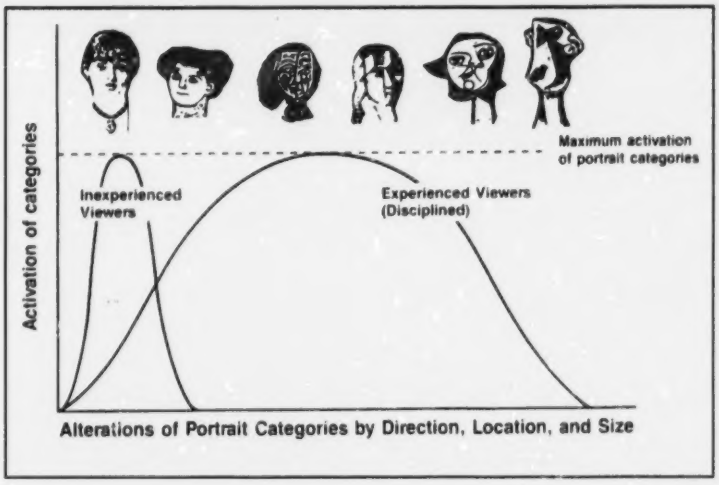
Activation of categories
Maximum activation of portrait categories
Inexperienced Viewers
Experienced Viewers (Disciplined)
Alterations of Portrait Categories by Direction, Location, and Size

Figure 3: Speculative portrait categories of inexperienced and experienced viewers.

In Figure 4 two cubist paintings are presented. These and 38 other paintings were used in our study on the appraisal of cubist paintings. All paintings represented human figures, with different degrees of realism. In the first painting of Figure 4, the human figure can be recognized easily, whereas in the second painting by Braque it is quite difficult for most people to identify the human figure depicted. I will only present the main result of this experiment. For the non-experts we found that their preferences were linearily related to the photographic likeness of the picture to a real human being. For the experts, however, the degree of realism did not play any role in their judgments, but rather they showed a linear relationship between the preference ratings and the stylistic typicality of the painting. The more a painting was regarded as typical for the style cubism, the more it was preferred. To a certain extent this pattern is in conformity with the idea that experts and non-experts posess of different category structures for paintings.

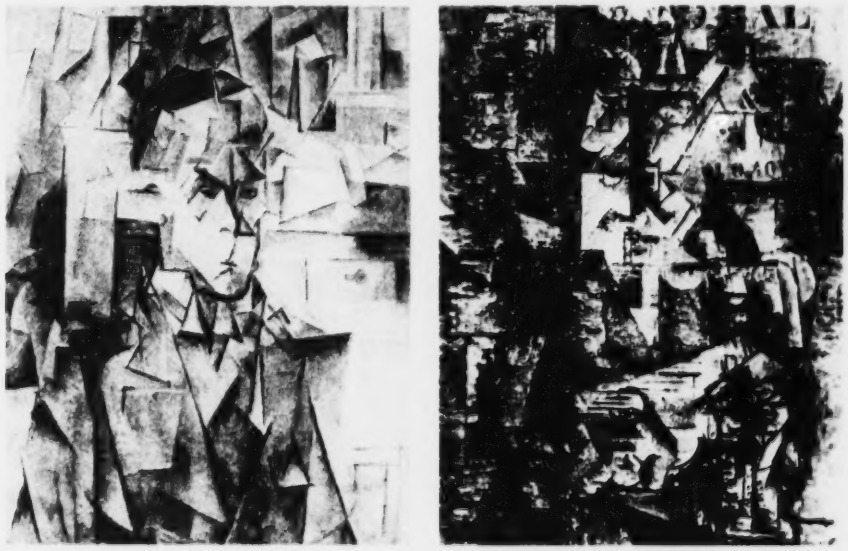

Figure 4: Two cubist paintings depicting a human figure; *Wilhelm Uhde* by Picasso (left) and *Le Portugais* by Braque (right).

I have come to the last level that can be distinguished: the evaluative level. We all know that experts and non-experts weigh certain atrributes of paintings, or art works in general, differently than non-experts do. You can think of colour or figurative elements which are often more important for inexperienced viewers, and of compositional qualities which are often relevant to an expert but irrelevant to a naive viewer. Second, the mode of evaluation often differs between a naive and expert observer. In general, we can distinguish a 'subjective', pleasure-based mode, leading to a judgment of attractiveness or pleasingness, from a more 'objective', interest-based mode of evaluation. This distinction has already been put forward by Kant a few centuries ago, and still a lot of people think it holds with regard to the judgment of art. For example, when you say that a painting is not pleasing to the senses because it is gray or gloomy, but you regard it good for other aesthetic reasons, or when a painting is not regarded as good but you like it nevertheless. To make such an 'objective' value judgment of quality, a certain kind of expertise in the field is necessary. So you can argue that to distinguish between these two types of judgment, expertise in the field is needed. The last difference between non-experts and experts at the evaluative level has to do with the agreement between or among observers. Because experts base their judgments on knowledge, on experience, one could expect that experts will agree among themselves more than non-experts do. We will show that the reverse is, however, often the case.

Following on these theoretical notions on the differences between experienced and naive viewers, I will continue with a discussion of some of my own experiments. For decades the field of experimental aesthetics has been dominated by a bottom-up type of research. Simple elementary shapes like rectangles, triangles or ellipses were varied systematically on one or two dimensions, for instance the proportion of a rectangle, and the researchers looked at the relationships between the preference ratings for those simple patterns and the systematic variations applied to those patterns. The obvious criticism was, of course, that those stimuli are anything but art. They lack any inherent beauty and they are rather meaningless, although you can associate them with a lot of things in real life. In the late sixties, a second type of research started, the top-down research. Real works of art were presented to observers who had to rate those artworks on verbal rating scales, i.e, scales with two bi-polar adjectives, one on each side of the scale. With this method, researchers tried to find the underlying dimensions responsible for the affective or evaluative judgments of observers. The problem with this type of research was that there are a lot of uncontrolled dimensions which also vary among the selected paintings. You can, therefore, never be sure which dimensions are the important ones for the differences in evaluative ratings observed.
To overcome the problems with both approaches while, at the same time, using the strength of both approaches, we tried to make systematic variations of real artworks. We scanned reproductions of post-impressionistic paintings, read them into a computer program and with various image processing techniques, we manipulated the paintings in order to create abstract versions while preserving, as far as possible, the compositional structure (see Figure 5 for an example). From both the original and degraded pictures, black and white versions were generated

as well. In sum, twelve paintings were manipulated on both dimensions which resulted in a total set of 48 slides.

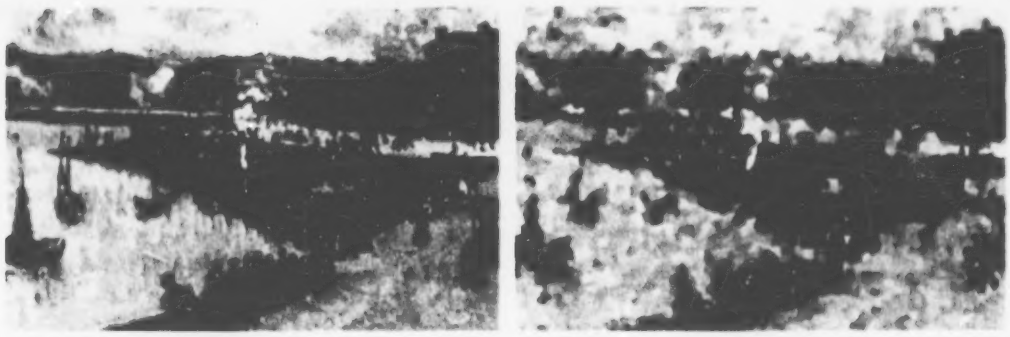

Figure 5: An example of an original painting and its degraded counterpart; R. Dufy, *Harbour*. [6]

The results of this study will be briefly presented. First, we looked at the effects of the manipulations. In general, the experimental manipulations did not affect the scores on dimensions which were meant to be left unchanged. Differences in the ratings of the various versions could, therefore, be attributed to changes on the selected dimensions: from figurative to abstract and from colour to black and white.

An interaction was observed between degree of realism (the figurative-abstract dimension) and the expertise level of the subjects. The degree to which the figurative pictures were preferred over the abstract ones decreased with an increasing expertise level. For the experts, there was no significant difference between the ratings on liking for the abstract and the original paintings. A second interaction was obtained between colour and expertise. Again, the degree to which the coloured versions were preferred over the black and white ones depended on the expertise level. The effect of colour was about equally strong for the non-experts and the relative experts and again there was no (significant) difference between the ratings of the colour and black and white versions for the experts. The last result is concerned the inter-observer agreement, the agreement between the various subjects within each subject group. With respect to the liking scores, there was a fairly high agreement among the non-experts, but the agreement was extremely low among the experts.

We think this method of manipulating paintings and distorting them in a systematic way is a promising technique. In principle you can distort paintings on any dimension you like. Of course, however, with every new dimension on which you vary a painting, you get an exponential increase of all possible versions. But, there is a second problem which was also addressed this morning by Michael Parsons. Works of art are not a sum of their elements. You can distort various elements of a painting and you can get some idea of the relations between the beauty or preference ratings with regard to those elements, but you can never get a complete grip of the higher-order invariants which will only be partly captured by those identifiable lower order elements. Those higher order invariants, for instance, refer to context, interpretative meaning, etcetera.

The last experiment I will report has to do with judgment committees selecting artists who applied for a scholarship. With respect to traditional studies in the field of empirical aesthetics this research did overcome a few 'ecological' limitations. Whereas in previous experiments most researchers used college students, non-experts as well as experts, in this experiment we were able to make use of professional experts like artists and experts employed in art institutions, etcetera. The group of non-experts consisted of, as Martin Lindauer called them, aesthetic persons. Those subjects were neither artists nor received formal art training, but they were extremely interested in and appreciative of the arts. Most of us can possibly be placed in this group, I hope. Second, evaluative ratings in most empirical studies are deemed rather irrelevant and reductionistic. Most people will not use terms like complexity or incongruity when evaluating a painting, but more likely use criteria like craftsmanship, originality, conceptual richness or power of expression. These criteria were also applied to judge the artworks in our experiment. The artworks were derived from applications of artists for a 'startstipendium', a grant for starting artists who recently graduated from an art academy. These works were selected in the hope that the experts would be unfamiliar with the artworks, but that the artworks would, at the same time, satisfy minimal requirements of aesthetic quality.

Some results off this study will now be discussed. The interobserver agreement was rather low, but the levels were similar to levels of agreement in other fields were evaluative ratings are made, for example ratings of scientific manuscripts by scientists. A second part of the results has to do with the impact of the various criteria on overall aesthetic quality. We performed stepwise regression analysis for the experts and the non-experts seperately, and those analyses revealed that for the experts three criteria - concept, craftsmanship and originality - explained 96% of the ratings of overall aesthetic quality. For the non-experts, there were only two criteria necessary to explain almost all variance in the quality judgments: craftsmanship and development. Thirdly, with regard to the agreement between the experts and the non-experts, there was virtually no agreement on aesthetic quality, nor on craftsmanship. But, and that was quite surprising, the two groups agreed fairly well on originality. When you combine the above results, we see that non-experts agree with experts with regard to originality. They, however, place less value on originality when it comes to judging overall aesthetic quality, but place a greater value on craftsmanship. Experts, on the other hand, regard craftsmanship fairly important, but place most value on originality, which reflects the striving for novelty which is a primary concern in present-day postmodern art. The last results have to do with the two modes of aesthetic evaluation I mentioned at the beginning. There was a very high correlation between the pleasingness and interestingness scores. It seems that the experts do not distinguish judgments of pleasingness from judgments of interestingness. The view that experts can argue that, 'it is badly done, but I like it nevertheless', is not backed up by empirical results.

My concluding remarks are concerned with the relevance of research in the field of empirical aesthetics. Of course this type of experimental research primarily serves a

fundamental goal: to gain insight into the psychological processes involved in the perception and evaluation of art. As we saw in the last study, this research can be applied to study real ecological problems in the field of the arts and can, therefore, help to improve judgment procedures in the field of art. Are these studies relevant to art education? That was the most difficult question I had to answer. Well, in a way it can; in order to know what skills must be trained one has to know, one has to understand, in what respects do experienced viewers differ from non-experienced ones. One has to know the direction in which art education, the curriculum, must head, on the perceptual level, on the cognitive level, etcetera. I think it is also important that these studies can help to emasculate some faulty assumptions derived from aesthetic principles, like the Golden Section proportion which was held for centuries as a proportion of unprecedented beauty. Recently, various researches have demonstrated that the special status of the Golden Section proportion cannot be confirmed with empirical evidence. Therefore, we think it is useful to make students of art, architecture or design familiar with this type of research; not to provide them with rules how to construct valuable aesthetic artefacts, but rather to broaden their views and contribute to their development.

I will close with one more quote which refers to Wittgenstein's remark at the beginning. It is a quote from Daniel Berlyne, one year before he died.
'What the ultimate fruits of this line of research, scientific aesthetics, will be, nobody can foretell at present. But there seems to be a good likelihood that light will be thrown on some of the most fundamental and as yet obscure questions regarding human motivation and, in fact, the nature of the human being. At a time when money is earmarked in vast quantities for the scientific study of all kinds of phenomena from the nature of quarks to the nature of hypergalaxies, there seems to be no very good reason why the reactions of human beings to aesthetic objects should, out of all the phenomena that exist in nature, be omitted.
At the same time, we cannot expect everybody to be excited by this work. All scholarly pursuits, from the study of medieval Arabic poetry to the study of the life of marine worms, leave a vast majority of the human race unmoved and unthrilled. Most people would not miss these researches if these ceased to exist all of a sudden. Yet on the other hand, there are and there always have been members of a minority who are willing to devote their whole lives and energies to probing. So, the frequently heard criticism that this person or that person does not find the results of a line of scientific research exciting is rather a silly one. This simply assimilates it to thousands of specialised intellectual pursuits to which everybody must feel indifferent.'[7]

Notes

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6 Hekkert, P. (1995). *Artful Judgments. A Psychological Inquiry Into Aesthetic Preference for Visual Patterns*. Delft, Technische Universiteit.

7 Berlyne, D.E. (1977). Psychological Aesthetics, Speculative and Scientific. In: *Leonardo* 10, p. 56-58.

Paul Hekkert

Paul Hekkert (1963) graduated from the faculty of Human Movement Sciences of the Free University, Amsterdam. Employed at the Faculty of Industrial Design Engineering of the Delft University of Technology, he is now working on his thesis *Artful Judgements. A Psychological Inquiry into Aesthetic Preference for Visual Patterns*.
He was a researcher at the Free University of Amsterdam, faculty of Human Movement Science and a research assistant at the Faculty of Industrial Design Engineering of the Delft University of Technology, where he has now been employed as a lecturer.
He published several articles together with other researchers, among others, in Empirical Studies of the Arts, the British as well as the American Journal of Psychology and Acta Psychologica and various other Dutch journals.

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6 DOUG BOUGHTON

Assessing Learning Effects in the Visual Arts: What Criteria Should Be Used?

In the past decade educational reforms around the globe have focussed interest upon the problems of assessment in the arts. Demands have been made by governments in most industrialised countries to demonstrate, in measurable terms, the standards of achievement attained by students in each of the subjects taught in schools. Concerns about the capacity of industry to compete successfully within the international market place has sparked reforms in both industry and education around the world (Boughton, 1995). Educational accountability in many countries, it seems, is now in the hands of accountants and bureaucrats, rather than educators. The consequence of accountability pressures on education in many places has been to foster outcomes based curricula that are thought to be more able to provide standardised information to systematic and regular patterns of scrutiny required by centralised systems of education.

These demands have created some significant dilemmas for arts educators. The arts do not easily reveal their quality or character through measurement. Standardised measurements of learning in the arts describe very little about qualities of idiosyncratic performance, and tend not to excite the vast majority of arts educators.

It is not surprising that, for many years, qualitative judgments, rather than standardised tests, have been widely employed in the arts to determine student progress and the standards of their achievements. Criteria are frequently employed by curriculum writers, and examiners, to express the qualities valued in student artwork, and to guide the judgment of arts educators. The problem with the use of criteria is that they express human values and are subject to various interpretations by judges who may hold different views about the significance, or precise meaning, of any given criterion. The problem with the notion of art is that it too is a social construction subject to various interpretations in different social, educational, and historical contexts. It is no wonder that education bureaucrats who value secure and predictable worlds - who lust after precision and reliability - become anxious about the validity and reliability of qualitative judgments. In an age of educational reform, characterised by an obsession with standards, reporting frameworks, and accountability measures, the value of qualitative assessment information becomes more and more difficult to justify to those who are preoccupied with statistics and management strategies. At the same time as the industrialists and politicians are demanding from educators increased precision in their judgments, clear standards, and higher levels of accountability, the impact of postmodern ideas is having the opposite effect in the world of art.

The question addressed in this paper is probably the most difficult assessment question for the visual arts 'What criteria do we use to assess student learning in the visual arts?' It is impossible to answer this in a definitive way. There is no educational panacea as far as criteria for the assessment of the visual arts is concerned. In the past few years we have seen an avalanche of ideas about assessment in the literature. Authentic assessment, criterion based assessment, assessment standards, national assessments, naturalistic assessment, process-based assessment, and content-based assessment, are just some of the terms that have infected discourse in the field. It is time to sift through the issues, and lay out the various contexts for debate about the nature and roles of criteria in assessment.
In the following pages I will lay out the major issues underpinning the development of appropriate criteria for assessment in visual arts education. I will first examine the related notions of criteria and standards, then discuss the problems of developing criteria in a postmodern age, the different contexts in which they might be used, the purposes they serve, their utility, and some ideas for development.

THE DIFFERENCE BETWEEN CRITERIA AND STANDARDS

It is important in the context of national assessments to examine the related notions of criteria and standards. While the current accountability pressures on education are transparently political in nature, there is no escaping the expectation, held by educational managers and parents, that value for the educational dollar (pound, florin, or frank) ought to be expressed in terms of achievement standards. The simple expression of the criteria used for assessment in the arts does not necessarily provide an indication of standards. Nevertheless the two ideas are often conflated in discussions about assessment. Put simply, criteria express the qualities we value in an object or performance, and standards express the degree to which they should exist. A criterion for judgment is not quite the same thing as the specification of an achievement standard. It is, for example, less appropriate to say that the student's work has 'met the criterion', than it is to say the work has 'met the standard required' although it is not uncommon in discussion between judges to hear someone say 'met the criterion' since the context makes the meaning clear. What is really meant is that the object (or performance) possesses enough of a certain characteristic to meet the minimum required. (Sadler, 1987)
It is a matter of some importance in discussions about assessment in the arts to be clear about the difference between these notions of standards and criteria, because substitution of one for the other can be misleading. Judgment of a work against pre-specified criteria does not necessarily mean a good standard has been achieved, even if all criteria have been addressed by the work. There is comfort in criteria, because they provide an illusion of rigour and imply the achievement of standards if they are used in making judgments. Standards carry connotations of objectivity, and a sense of stability. A benchmark against which student work can be compared with some degree confidence that a normative comparison has been achieved. Use of the word standards comforts those administrators and parents who need to be reassured that objectivity has been employed in the making of judgments about students' work.
There have been numerous attempts by scholars to distinguish between these

terms. Sadler (1987) defined the difference like this:
'Criterion: A distinguishing property or characteristic of any thing, by which its quality can be judged or estimated, or by which a decision or classification can be made.
Standard: A definite level of excellence or attainment, or definite degree of any quality viewed as a prescribed object of endeavour or as the recognised measure of what is adequate for some purpose, so established by authority, custom, or consensus.'

The critical element in the definition of standard is the establishment of a (socially) 'recognised measure' which comes into being through some kind of imposed act of authority, by accepted custom, or by simple agreement. I will return to this idea later in my discussion about judge agreement.
In contexts, other than the arts, the distinction is a simplistic one. In mathematics we might say the criterion is 'ability to find "x" in a quadratic equation' ... and the standard is ... 'at a level of accuracy of 80% or better for each 10 cases attempted'. Where standards can be expressed as numbers, the distinction is relatively simple. When it is left to judges to assess the degree to which a quality - expressed by a written criterion - is present in the work, the distinction becomes less clear.
Eisner (1992) suggested standards could be defined in two possible ways, first as a level of performance, and second as a unit which serves as a standard of measurement. For art teachers the former notion, a standard of performance, is a more appropriate conception than the latter, which requires determination of the presence or absence of the quantity of something. For complex performances or objects, the judgment of standards has to do with matching an observed phenomenon against an ideal or exemplar. A routine for the gymnast on the parallel bars requires certain performance criteria to be demonstrated - balance, and stability in executing certain required routines for example - but the level of excellence relative to each criterion is determined by the judges in terms of the match between the observed performance and the ideal performance held in the judges' heads.
Where a known ideal exists the outcome is not a particularly surprising event. In visual arts education, and I refer particularly to studio work, the judgment task is far more complex since the work being judged is normally expected to show originality of thought, and convey some sense of the idiosyncratic nature of the maker. It is not possible, nor would it be appropriate to pre-define exactly the ideal performance, or icon, against which students' work is matched to determine level of achievement. It is much more appropriate to use criteria which express conceptions of qualities thought to be desirable in the work. (Eisner, 1992)
Even with the assistance of criteria we have, at best, only a guideline for the making of complex judgments. Each criterion is able to indicate a desirable quality which may or may not be relevant to a given work, or body of works. Criteria singly, or in combination, are constitutive elements, which serve to provide an array of windows through which a judge may look. They do not provide a definitive framework. These windows may sharpen a judge's focus, but it still remains for the judge to value the qualities of the work, to understand its genre and the context in

which it was produced. In the end the judge is the instrument that determines the standard, no matter how many criteria are employed, or how many subdivisions are described within a single criterion. Over the past few years there have been a number of attempts to specify indicators of performance levels relative to criteria, and these have provided assistance to teachers in varying degrees. Some of the more recent efforts to lay out national standards frameworks include the National Standards for Arts Education produced by the consortium of (American) National Arts Education Associations, the Secondary Examinations Council's (SEC), draft Grade Criteria for the General Certificate of Secondary Education (GCSE) examinations in Art and Design (SEC, 1986), and the Australian Arts Profiles Statement.

The International Baccalaureate (IB) assessment criteria provide an example of an attempt to delineate performance standards using criteria to describe degrees of value. For the assessment of studio performance the IB programme indicates six criteria (International Baccalaureate, 1995). These are:

1 Imagination and creative thinking and expression
2 Persistence in research
3 Technical Skill
4 Understanding of chosen media
5 Understanding of the fundamentals of design
6 Evaluation of own growth and development

Achievement levels for each one of these criteria are illustrated by five written descriptors indicating five levels of performance from 1 (lowest) to 5 (highest). To illustrate the criterion 'Imaginative and creative thinking and expression' the following descriptors are supplied This is for the purpose of illustrating my point, I won't discuss the rest.

Level 1

The work shows that the student has worked only under supervision, showing little interest or empathy for the projects. The work is mundane, derivative, and without imagination.

Level 2

The student has worked in a manner which is largely derivative and not very inventive. Nevertheless the work contains some imaginative elements.

Level 3

The work tends to be mundane, but the student has investigated and found ways of expressing ideas and feelings with some imagination and with varying success.

Level 4

There is an individual approach to the work, which is sometimes rich in imagination. The work shows that the candidate has searched for new ideas and has found some original solutions.

Level 5

The work reveals a consistently imaginative approach, a creative response and an unusual ability to develop ideas with intelligence and originality.

While this specification of achievement levels is intended to assist judges in their thinking, a high level of precision is not possible, and complex, qualitative judgments still have to be made. These performance descriptors are in fact criteria, but more specific criteria, which provide guidelines for judgment, and constitute a useful basis for debate about the relative standard of works being judged. Their intention is to reduce disagreement between judges - an important consideration for the IB, given that work is submitted potentially, from over seventy countries. The need to agree, of course, is another issue which I will discuss later.

IMPACT OF POSTMODERN IDEAS AND THE SEARCH FOR CRITERIA

In this period of educational reform which is characterised by bureaucratic pressure upon teachers to express the outcomes of student learning with ever more clarity and certainty, it is ironic that postmodern thinking has called into question traditional values held, not only in art, but across all subject disciplines. Education has been drawn into the vortex of industrial micro-economic reforms at the very moment postmodern scholars have raised fundamental questions about educational practice, and, particularly, in art education, important issues about what counts as art. The intellectual conflict between the eclectic views of postmodernism and the deterministic certainties of the industrial Zeitgeist, in which education is now gripped, is the source of much of the debate about what criteria we should use to judge art learning, and indeed, how those judgments should be made.

While 'postmodernism' is not yet a cohesive, or well defined notion, it is sufficiently evident in the discourse of academic groups within the broader cultural context, to indicate the emergence of a new intellectual mood which has shown itself in the past decade or so. Some philosophers, such as Foucault, have claimed that we are experiencing a reconfiguration of Western thought and action on a scale equivalent to the Renaissance. This revolution has been characterised by the rejection of many ideas and practices that began with the Enlightenment of the Eighteenth Century. (Shumway, 1989)

Those include rejection of a teleological view of history (that we are moving progressively towards some great purpose in history); the rejection of belief in the state as the centre of politics (instead power is possessed in information passed through social networks - and is usually unequally distributed); and rejection of belief in the great creative genius who generates new ideas (instead the ideas have their origins in discourse which precede the individual). The traditional view of the artist expressed by Edward Gordon Craig in 1911 as, 'One who perceives more than his fellows and who records more than he sees' no longer holds true in the postmodern view. The artist today may well be a woman - and it is the critic who is thought to perceive more than the artist.

Whether or not we are passing into a great new intellectual age, there are some elements of postmodern thought that are already impacting upon art education. One of the most obvious is the value placed upon the 'eclectic' and 'bricolage' - the habit of using whatever comes to hand. (MacGregor, 1992)

The 'new architecture' which emerged during the 1970's uses architectural

elements from the past, combining them in eclectic configurations that often verge on the bizarre. Jencks (1991) popularised the term 'postmodern' in his discussion of these kinds of architectural images. The practice of plundering the past for inspiration is now as evident in fashion and popular music as it is in other facets of our culture. In the art world the need to be constantly original no longer dominates artist behaviour. Postmodernism has removed the mystique of the original. Ideas from the past now sit comfortably with those of the present.

Similarly ideas from different cultures can be accommodated together in the context of pluralistic societies. Many of the old cultural distinctions within, and between cultures are breaking down. In societies where many different cultural groups are living together the cultural activists express their values through art works in curious combinations of imagery and materials. Distinctions that once had meaning are no longer clear or significant. What is the difference between the 'original' electronic computer image and the 'copy'? Is the distinction important? What is 'authentic' in Aboriginal art? Ochre on bodies? Acrylic on canvas?
Other distinctions between high art and popular art are no longer as significant as they once were. In questioning old dichotomies the postmodern age has produced a world of tension between the old and the new, popular culture and high art, conservation and renewal, Western traditions and other cultural practices, in which one is not supposed to be valued over the other.
One of the key characteristics of postmodernism has been the celebration of the role of the critic, and the demise of interest in the great creative author (or artist). The study of text (and work of art as text) has become a primary interest of academics. Using a structuralist method of analysis ('deconstruction') the postmodern critic uncovers, layer by layer, the sources and nature of concepts used by societies to construct their own 'reality'. How concepts have developed, the connections between them, and which are defined as 'good' and 'bad'.

An expectation of postmodernism is that critics will never agree. (MacGregor, 1992) The deconstructive techniques of social criticism in the art classroom have shifted attention away from formalist concerns of composition and visual elements to the nature of human interactions, issues of gender, ethnicity, and social status. Multiple viewpoints and value positions are celebrated. Critical discourse is central to artistic endeavour.

Several issues arise for educators who have to judge student art learning works, particularly at the senior school level. What is the relationship between postmodernism and modernism in curriculum structure?
- How do we accommodate emerging postmodern forms within traditional criteria derived from modernism? The issue of originality is challenged by eclecticism, and technical mastery may be even less significant in relation to the idea carried in both visual and verbal forms.
- Should the balance in emphasis of socially critical theoretical analysis and studio practice be reconsidered? Aesthetics within a postmodern paradigm may be less significant than social consciousness.

- Should the balance of language and image be reconsidered in the total programme? Text and image are frequently combined in postmodern expression. At times the image is incomprehensible without the text.
- To what extent should formalism and modernist concepts be valued as artistic learning? The traditionalist argument suggests established concepts and processes ought to be leaned before new expressions can be properly understood. Postmodernism is the newly emerging form, but is only the newest of many other forms of artistic expression which posses their own unique integrity. This debate will continue for some time.

ROLES OF ASSESSMENT

In his paper given at the Bosschenhoofd Evaluation conference, Eisner (1990) drew some important distinctions between the roles performed by evaluation in education. Four of those distinctions apply to assessment of student outcomes, and are important here. The first role of assessment Eisner suggested was a 'temperature taking' function. Selected samples of students can be surveyed on a state wide, or nationwide basis, to determine the 'health' of the subject. The function of assessment is not to examine every student's work, but to gather statistics relative to the performance of students within a variety of cohorts, such as gender, cultural background, region, and so on. The value of such surveys is largely political. Data are compressed to gain indications of trends and patterns. The results enable politicians to make comparisons between states, with other countries, and occasionally form the basis for funding decisions and policy changes. The National Assessment of Educational Progress (NAEP, 1982) is a good example of this kind of assessment. Typically all students selected for the sample are provided with identical tasks, and scoring systems are applied to the outcomes in order to express the performance as a number. Standardisation of both task and scoring system are central to this form of assessment.

A second function of assessment Eisner called a 'gate keeping' function. At various levels of schooling students are granted (or denied) access, to higher levels of education, or employment, on the basis of their performance indicated by summative assessments. Typically senior students are assessed at the end of their schooling at about Year 12, and success is essential for entry to university. It is at this point that the most significant assessment energy is expended. In centralised systems the obsession of system managers is to achieve rankings that appear to be equivalent. The work of students in different schools should receive similar grades for work of similar standard. The administrative problem, particularly in the arts, is to devise an assessment strategy that will achieve this parity as efficiently and cheaply as possible. The nature of criteria used and the manner of their application is a critical factor in the success of this judgments. The confidence universities place in the reliability of these scores is vital to the continued well being of subjects in the schools.

A third function that can be served by assessment is to determine the degree to which a programme's goals have been met. In contexts where the model of

education is conceived as a staircase, certain prescribed content and skills are laid down for mastery at each level, and the student's ticket to travel to the next level is achievement of the programme goals. Criterion referenced assessment is commonly used in these situations. Again the style of assessment is summative.

A fourth function of assessment is to assist teachers to diagnose strengths and weaknesses of the student's work. The role and nature of this kind of formative assessment is markedly different from the summative function of 'gate keeping' assessment discussed before. The goal of formative assessment is to provide the pupil with an understanding of their own development in the subject and its role is to facilitate the students' further improvement towards meeting their own and/or programme objectives. Assessment discussions in formative contexts can range more freely, and take more account of intrinsic issues and the students own goals and feeling states. If the student is not progressing toward an end of year centralised summative assessment, the potential exists for the spontaneous development of new criteria - 'emergent' criteria - appropriate to the particular nature of the student's developing interests. It is reasonable in this kind of context for the teacher to say, 'If that is what you are trying to achieve then the most appropriate way to judge it is this...' And this is not serendipity, it is an appropriate responsive strategy consistent with the nature of artistic thinking. If, on the other hand, formative assessment is undertaken with a view to preparing students for a major summative assessment later in the year, it is likely diagnostic analysis will focus upon the summative assessment criteria. (Hamblin 1988)

The goal of summative assessment is to provide normative information about pupil achievement in relation to all other students of similar classification, and its role is to perform gate keeping functions I described before. In terms of educational pay-off the richly descriptive ideographic insights generated through formative assessment practices are significantly more beneficial to the pupil than the cryptic computer codes of comparative data that are the product of summative assessments.

I have described some of the roles of assessment which will affect the nature of criteria appropriate to the form of assessment being undertaken. Not only does the role of assessment affect criteria, so too will the context - specifically the students who are subject to the assessment.

THE RELATIONSHIP OF ASSESSMENT ROLE AND CONTEXT

The cultural character of student populations varies from country to country. In some European countries cultural values remain relatively homogenous, whereas in newly colonised countries, such as my own - Australia - and others like Canada and the United States a major struggle for cultural identity is a feature of intellectual and artistic life. Australia typifies the problems one faces in coming to grips with definitions of cultural identity. In a country where immigration has produced forty percent of the population since World War Two; the indigenous Aboriginal population is determined to preserve its cultural identity; the 'invaders' (as

Aboriginal people call them) or 'colonists' (as the British call them) originated from England; the composition of the immigrant population boasts representation from virtually every country on the globe; and the geographic location; all too clearly indicates the strong presence of Asia - the development of a single set of criteria appropriate to judge the artistic products of the entire student population is a challenge to say the least.

How appropriate is it to apply assessment criteria, derived from mainstream Western traditions, to a school like Kintore in the Northern Territory, a government public school, eight hours drive from Alice Springs by four-wheel drive vehicle over unsealed roads. The only school building is a corrugated iron shed used to store equipment; teaching happens in the outdoors, the student population is itinerant, comprising about 85 Aboriginal children - living partly traditional lifestyles - and those in class at the end of the year may not necessarily be the same students as those who began in January. This is an extreme example, but there are many others like Kintore throughout the Northern Territory and Queensland.

An increasing proportion of Aboriginal art work is produced by cultural activists (Neale, M). Much contemporary Aboriginal art is transitional in nature, derivative of traditional images, but consistent with the socially critical values of postmodern ideologies. Traditional Western criteria for judgment (such as originality) need to be reconsidered in judging such work. Aboriginal students who attend schools in urban settings are living transitional lifestyles, and many are rediscovering their heritage.

In the cities it is not unusual in some locations for school populations to be dominated by Asians, or Muslims, or various mixtures of ethnic groups. Australia boasts a policy of multiculturalism which expressly protects the core cultural values of all groups, while the problem of constructing curricula to accommodate such policies has not been adequately addressed.

Two debates arise from contextual issues, each of which will shape the eventual nature of criteria employed for judgment. These are:

1 The expected role of assessment

What role is the assessment expected to perform? Is it a national 'temperature taking' role, a 'gate keeping' role, a school curriculum management role - a summative role or a formative role?

There are three subtexts to this debate. The first is the educational value of the assessment - or assessment pay-off. What useful educational purposes can be served? Formative assessments, for example, will contribute to different educational ends than politically motivated national surveys. Emergent criteria may make a valuable contribution to the educational needs of an individual in a formative assessment context, whereas they would be inadmissible in a national survey.

The second is the validity issue. How does one adequately represent artistic learning through the criteria selected for the assessment strategy. Related to this is the question of what counts as art which was discussed before in relation to the emergence of postmodern ideas.

The third issue is that of utility. How can the specification of criteria assist the assessment? Returning to the issue of standards: if it is important in the assessment context to arrive at some representation of standard, is there some value in utilising criterion rubrics?

2 Who is to be assessed?

The subtext to this debate is essentially about the collision of cultural values and conceptions of the nature of art itself. The values held within the group context, and beliefs about the nature of art will be important, as will the values of the dominant group.

THE NEED FOR AGREEMENT IN CRITERION BASED JUDGMENT

Centralised assessment of student work at the point of exit from high school is the context in which the most interest in judge agreement has been focussed. The common assumption is that if judges can agree about the merit of student work then objectivity has been demonstrated by the judgment process. If different judges, using the same criteria can agree about the standard of work over a variety of cases, then reliability has been achieved, and confidence can be placed in the judgments. This assumption is derived from the natural sciences and is based on the belief that a 'true' score for student work exists, and may be approximated through the agreement of experts. Most effort in centralised systems is invested in developing cheap and efficient strategies to obtain agreed judgments.

Diederik Schönau (1990) reported at the Bosschenhoofd Conference work done by CITO to examine the Dutch Central Practical Examination (CPE) in terms of the potential for achievement of common standards against national prescriptive criteria.

In the first year of the exam student work (1981) was judged by the student's teacher and a panel of five judges. In 1982 the jury was reduced to three, and from 1983 the work was judged by the students' own teacher and a specialist colleague from another school. The analysis of scores showed an acceptable level of judge difference between the scores allocated irrespective of the number of outside judges.

Other systems for the determination of agreed studio scores have been well established for decades. The British GCSE, and the Australian state moderation systems are two examples of teacher moderated scores. The International Baccalaureate is an example of an examiner moderated system. These processes have come into being in response to institutional demand, most frequently by the requirement of universities to demonstrate the 'objectivity' of standards.

In the visual arts, and particularly in the postmodern context, judge disagreement about artwork is not an unexpected, or necessarily an educationally undesirable outcome. Any work of art produces a spectrum of opinion. It is often the information about the difference in opinion, rather than congruence, that is of most value to the student. Efforts to force homogeneity of judgment tend to reduce the value of that judgment to the student. The most critical information is lost!

When the role performed by assessment requires judge agreement, it is useful to examine some of the potential sources of judge disagreement. Let's examine some of these using a common criterion 'originality'. Just how original does the student's work (or thinking) have to be to achieve a high standard? How does one express 'degree of originality' in words as a standard? And how does a judge determine the 'degree of original thought' manifested in students' work or performance? There are several explanations for variability between judges:

1 The judges' experience

The more extensive the background of the judge, the broader the basis for comparison with other cases in his or her experience. A judge with ten years experience may be better placed to judge the 'novelty' of 17 year-old students' work than a judge with one year of experience in a similar context. The nature of the experience also plays a critical role. Judges from different school districts, systems, or cultures, are likely to overlook contextual cues in the judgment of work simply because their experience is not grounded in the same context of shared values. On the other hand, of course, too much experience in the same context can lead to restrictive, blinkered judgments. We can all recall the frustration of dealing with very experienced (older) teachers whose judgments are anchored in stereotypes of 'good work' that have become ossified in their thinking.

2 The clarity with which both criteria and standards are expressed by words and with exemplars

The expression of a criterion in words is, at best, an exercise in reductionism. Often the most important qualities are tacit in nature, and very difficult to express in words. The nature of 'aesthetic response' is one of these. One temptation is to write criteria that can be written, rather than to attempt to write those that are more appropriate, but are difficult to define, or are controversial. To succumb to this temptation is to end up defining the bath water rather than the baby.

The second dilemma is related to the first. How specifically should criteria be written in order to increase judge agreement? A statistician, Tukey, once observed, 'Far better an appropriate answer to the right question, which is often vague, than an exact answer to the wrong question, which can always be made precise.' (Tukey, 1963, p. 13-14)

To rephrase this observation: It is far better to judge artwork against appropriate criteria which are often vague, than to make exact judgments against wrong criteria which can be expressed precisely.

Some education systems employ visual exemplars as 'benchmark standards' to more clearly represent in images qualities that are difficult to represent in language.

3 The philosophy held by the judges

Two judges viewing the same work may hold different opinions about its value. A judge with modernist values, for example, may reject eclecticism as unoriginal, and regard copying as evidence of technical and imaginative ineptitude; whereas a judge holding postmodern values may reward eclecticism and copying, because both are appropriate and consistent with contemporary art practice. At the cutting edge of artistic exploration these dilemmas will always exist in judgment about student work. Because they are matters of value, and not fact, they are difficult to resolve.

CRITERIA VERSUS GLOBAL JUDGMENTS

One of the perennial dilemmas of judgment strategies is in determining the role and value of global judgments. The assumption of criterion based judgments is that the sum of all the elements defined by criteria together equal the whole. If we use the analogy of criteria as windows, the perfect list of criteria would comprise a transparent room, with no part of the interior excluded, with no window overlapping another, and no pane of glass less transparent than the next. What is revealed is the entire content of the room (all the qualities of the artwork) in perfect detail, with no aspect of it seen through more than one window (to be counted twice). In the real world, we deal with unstable and vague words to describe visual phenomena that can take multifarious forms, and we use human beings with imperfect eyesight to peer through the windows.

The old adage that the whole is equal to more than the sum of the parts still bedevils judges. Schönau's report at Bosschenhoofd of the CITO research showed that global judgments tended to produce higher judge agreement than judgments using criterion analysis. My own interviews with five chief art moderators in Australia indicated a preference for the global judgment over strict adherence to criterion based referencing. Judges admit forming an overall impression, then checking the criterion judgments against that overall impression to confirm the final score.

The International Baccalaureate system ensures this does not happen by pre-determining weightings for each criterion which is scaled to a maximum score of five, then, computing the final weighted judgments out of a total seven. In this way examiners cannot check the final score against their global impression. The IB system is a highly specified criterion based judgment system that predetermines relative significance of criteria and disallows global judgment by examiners. It does this to increase the probability of judge agreement across many different cultural settings, but in doing so may not be as flexible and responsive to various artistic interpretations, as smaller systems contained within homogeneous contexts. Some systematic examination on this question is warranted.

Little research is available in visual arts education about the relative value of global versus criterion referenced judgments on complex tasks. If we look to other

disciplines some parallels may be seen. Walker (1983) found that problems of objectivity in assessing language speaking skills could not be improved with the use of detailed mark schemes. She claimed that the division of language into separately assessed components was inappropriate in oral tests, and did not necessarily provide greater reliability than global judgments. In fact, her study confirmed earlier findings by Dyson (1972) that dividing oral performance into separate parameters to increase a marker's ability to assess objectively found little difference between the reliability of global as compared to analytical mark schemes. Also, the strategy admitted by markers using analytical schemes was to make some kind of general assessment, then apply it to each scale. 'Alternatively, experienced markers frequently decide on the total score ("That's a 25 out of 30") and then distribute it among the separate scales.' (Walker 1983, p. 44)
The parallels with problems of assessment of visual art are striking, and echo Schonau's findings in the study discussed before. It appears that there may well be some similarities in the way human judges process and evaluate complex forms of verbal and visual communication in education settings.

WHAT CRITERIA SHOULD WE USE TO ASSESS LEARNING IN THE VISUAL ARTS?

I began with the question 'What criteria should we use to assess student learning in the visual arts?' The answer I have been at pains to develop is that - it depends! I have attempted to lay out the major political, contextual and philosophic debates that will have some impact on the criteria we may use to judge student learning. I have done this in the hope that it may assist art educators to think through the issues in their own contexts. I have not entered into the DBAE argument since too much typespace has already been devoted to it in other places.

In summary the major issues are these. First, politically inspired educational reforms have resulted in worldwide development of centralised assessment systems with the expressed purpose of clearly defining objective standards of student achievement. Pressure to define standards has led to some confusion between the notions of criteria and standards. The major recommendation arising from this issue is to distinguish between criteria and standards since they are not the same thing, and should not be confused in qualitative judgments.

Second, the impact of postmodern thinking has created tensions between the expectations of centralised assessment, and some of the traditional ways of defining art, raising the need to debate distinctions between modern and postmodern ways of defining art and art learning. There are three main issues here. How do we, or should we, accommodate emerging postmodern forms of visual art alongside traditional criteria derived from modernism? Should the balance in emphasis of socially critical theoretical analysis and studio practice be reconsidered? And should the balance of language and image be reconsidered in the total programme?

Third, I described four of the roles of assessment, identified by Eisner, which could

affect the nature of criteria developed for assessment. These roles were: 'temperature taking', 'gate keeping', 'course management' and 'formative' - the first three being summative, and the latter diagnostic. Given that the roles of assessment are different, and the constraints are different the issue is an obvious one - what purpose is the assessment expected to perform?

Fourth, the context for assessment was shown to circumscribe the ways art might be conceived within different cultural contexts. The issue here being addressed by the question - who is to be assessed?

Fifth, I argued that the need for judge agreement was an assumption derived from the natural sciences, and was not necessarily related to the value of information obtained from different readings of an art object offered by different judges. In a formative context different evaluative feedback from various judges may be extremely valuable for students. In a summative context different judge views represent a problem for system managers. Despite the limitations in terms of educational value derived by agreed judgments, expressed in the form of a grade, the need to consider ways to obtain agreement about criteria is inescapable in the nineties. When the assessment design problem depends upon agreement the following questions need to be addressed:

- What experience and philosophy should the judges' have? (How should they be selected? How should they be initiated).
- How specifically should criteria be written. Should subcriteria (rubrics) be used to illustrate expected standards?
- Should visual exemplars be used?
- How many criteria are required to describe the qualities expected in student work?
- Should criteria be weighted, i.e. are some more important than others?

Finally, I raised the thorny issue of global judgments as opposed to criterion based judgments. The question following from this debate is a procedural one.

- Does the global judgment perform a more effective role in assessment than criterion based judgments?

How do we begin to select appropriate criteria? The major debates revolve around ways to judge studio practice. Ron MacGregor (1992) has systematically examined centralised assessment practices in Britain, Holland, Australia and New Zealand, found that the criteria used by teachers to judge studio work show little variation from country to country because art teachers everywhere seem to have similar expectations for their students. Most employ some variation of three categories of criteria: relative ability to develop and interpret a theme, level of technical expertise, and relative ability to achieve sensitive personal expression through the use of a variety of techniques and processes.

It seems to me that this is as good a place as any to start the development of studio assessment criteria. The concomitant issue is, of course, the nature of the

relationship between reflection and language. Howard Gardner and the ARTS PROPEL project has addressed this issue in the Pittsburg Schools trials. DBAE has fractured reflection into difficult distinctions between history, criticism, and aesthetics. Some education systems run separate theory and practical elements resulting in disjunction between the studio practice and thinking, talking, and writing about art. Often the structure of programmes has more to do with politics than it does with the nature of the discipline. The resolution of these problems lies in the debates that must be undertaken to clarify conceptions of the disciplines, and the roles of assessment.

The question of which criteria to use has no universal answer. What I have done is to avoid answering it as gracefully as I can, but in a way that hopefully provides an understanding of the dimension of the dilemmas. One thing that is absolutely clear, however, is that if the arts are to maintain their vitality, their critical sharpness, and their contribution to the intellectual and cultural well-being of individuals in our respective societies, we must demand responsive education structures that engage both managers and practitioners in debate - not occasionally when new programmes are developed - but as a systemic component of day-to-day educational life, and particularly as part of the assessment process.

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Doug Boughton

Doug Boughton is currently Professor of Art Education at the University of South Australia. He was head of the School of Art and Design Education from 1985 to 1994. He is an internationally published author whose work is represented in numerous books, journals, monographs, and newsletters in Australia, Canada, UK, New Zealand, and the USA. He has presented papers at national conferences in every Australian State, and overseas in the United States, Germany, Fiji, New Zealand, Canada, and The United Kingdom. His main research and teaching interests are in the fields of art curriculum policy, curriculum development and evaluation. He established the National Research Council of the Australian Institute of Art Education and was its Foundation Director from 1991-1994. He is a World Council Member of the International Society for Education through Art (INSEA), and Convenor of the Research Board of that Council. He was appointed Chief Examiner Art/Design for the International Baccalaureate in 1994. He is also Principal researcher of the Art Education research Group at the University of South Australia.

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7 DAVID J. HARGREAVES

Does Research on Aesthetic Responses to Music Have any Implications for Arts Education?

There remains a wide gulf between psychological research on the arts and practice in arts education, and many attempts have been made to bridge the gap in different ways (see e.g. Hargreaves, 1989). I have been given the task of evaluating the extent to which psychological research on aesthetic responses might be applicable to educational practice, which on the face of it is a formidable undertaking. I would like to attempt to do so by taking a fairly broad view of psychological research on aesthetics, and to concentrate on research on music, which might help to compensate for the emphasis on visual art in many other presentations at this conference. I shall make no attempt to undertake any comprehensive review of the literature, but will instead concentrate on some examples from my own research and teaching interests.

My presentation starts with a general description of five of the current practical problems faced by British music teachers, for each of which I have drawn a parallel with a corresponding theoretical issue in the study of artistic development. Although teachers' practical problems arise from developments in the educational system in the UK, the issues raised are of much wider international concern. There follows a general review of the main approaches to research on music aesthetics, some of which are illustrated by work of my own on the development of aesthetic reactions to music over the life span. In the final section I attempt to evaluate the usefulness of the latter for the former, concluding that teachers' awareness of research on pupils' developing critical appraisal, enjoyment and tolerance for a diversity of cultural styles and idioms can be an important factor in countering prejudice and stereotyping.

PRACTICAL AND THEORETICAL ISSUES IN MUSIC EDUCATION

We can identify five practical questions that British music teachers are currently facing as a result of the introduction of the national curriculum in 1988: along with these go five parallel theoretical questions which are the province of the psychologist. The first concerns the definition of what have been called 'attainment targets', namely the nature of what children should actually be taught. There has been a considerable amount of very public debate about the emphasis should be placed on active aspects of music-making such as performing and composing on the one hand, and on activities such as appraising and displaying knowledge about music on the other. The outcome has been the recommendation that the first attainment target, 'Performing and Composing', should occupy about 2/3 of the time spent on music and the remaining 1/3 on the other, 'Listening and

Appraising': but also that the two should be taught in conjunction with one another. The theoretical question which closely parallels this is the extent to which artistic production, perception, performance and representation are related to one another. How does creative activity relate to aesthetic perception, for example, and do similar cognitive mechanisms underlie both processes?

The second issue concerns the developmental sequencing of the curriculum, which is defined in terms of 'key stages'. There are four of these key stages, at the ages of 7 years, 11 years, 14 years and 16 years, and the curriculum specifies what children ought to be learning, and what they should be capable of, at each stage. These capabilities and attainments are defined in terms of 'statements of attainment', and so the practical problem lies in specifying 'end of key stage statements of attainment'. This raises a perennial theoretical problem which still has not been resolved, namely does children's artistic thinking proceed in stages? There are those who would argue quite strongly that it does, and those who would argue equally strongly that it does not. This is not the place to try and resolve this difficult issue, but I would merely point out that if we cannot do so, the rationale for specifing statements of attainment becomes very risky. Although there is an obvious difference between children's attainments in school at these age levels and the psychological capabilities they may possess, the two are nevertheless intricately interrelated.

The third practical question is related to the notion of 'discipline-based arts education', which has been discussed elsewhere in the conference: should we treat the major art forms separately, each in its own right, or should we treat them all as an integrated discipline which strives towards aesthetic learning in a generic sense? Here again there are strongly divergent views. Gardner's multiple intelligence theory, for example, argues strongly for a domain-specific view in which the skills, attitudes, and abilities essential for one domain are not necessarily applicable to the others. The Piagetian-type view espoused by Parsons (1987), on the other hand, suggests that there are stages in aesthetic learning which apply across the arts in general.

The fourth issue is that of assessment. In the British national curriculum debate, one of the main issues has been the extent to which assessment should be carried out by means of external, standardized tasks (so-called Standardized Assessment Tasks, or SATs), or on the other hand by means of internal course work evaluations by the teachers. In spite of an early desire to adopt the latter approach, considerations of time and political pressure resulted in a strong emphasis being placed on SATs, which is still part of the current situation.

In the case of the arts subjects, we quickly come up against the difficult question of the measurement of creativity. In evaluating a pupil's original musical composition, for example, what balance should be struck between technical or performance skills and creative thinking? Should an original idea which has perhaps been inadequately worked out or sloppily executed receive a higher or a lower grade than well-

presented piece of work which is essentially unoriginal, derivative or even rather boring? Should assessment in the arts be summative, dealing primarily with the product, or should it deal formatively with the process? To what extent should the child him or herself be involved in assessment? The answers to these difficult questions clearly depend upon an understanding of the underlying purpose and rationale of assessment, which once again highlights the interdependence of theoretical and practical issues.

The fifth, and very fundamental practical question concerns the very purpose of music teaching: what (and who) is it for? In British music education there is a current tension between what might be called specialists and generalists. Specialist teaching has been in existence for many years: talented children are taught to attain high levels of perfomance, usually within the traditional 'classical' repertoire, often by peripatetic instrumental teachers, and the careers of many professional musicians have begun in this way. But the national curriculum now specifies that all children must study music up to the age of 14 years, and so there has been a rapid expansion in what might be called general or 'curriculum' music. The tension arises because the goals and methods of specialist and generalist music education can be very different. Teaching the musically average child to sing, or to improvise on a percussion instrument may well require a quite different approach than that of the instrumental specialist, and the traditional goals of these specialists may be quite inappropriate.

A parallel distinction can be made between what might be called expert and normative musical development. Most of the empirical research literature has dealt with the latter (see e.g. Hargreaves, 1986): with 'natural' musical development in those who have no intention of becoming musicians. However, there is currently an increasing amount of research interest in expert musical development, and in life span changes in the careers of professional musicians (see e.g. Manturszewska, 1990; Sloboda and Davidson, 1995). In the rest of this presentation I shall be concerned largely with normative issues rather than with those concerning experts, especially as this applies to musical taste and preference.

APPROACHES TO RESEARCH ON AESTHETIC RESPONSES TO MUSIC

Six approaches can be identified: some of these derive from particular theoretical points of view, some primarily from methodological techniques, and there is a good deal of overlap between some of them. The first is the approach of experimental aesthetics, which is one of the oldest branches of experimental psychology, dating back to the work of Wundt and Fechner. After a decline in interest in the early part of this century there was a revival of interest in the 1960s which was largely a result of the work of Daniel Berlyne. Berlyne coined the term 'the new experimental aesthetics' to refer to his psychobiological approach, according to which people's likes and dislikes can be explained in terms of their level of arousal. Berlyne adapted Wundt's notion of the inverted-U function according to which liking for stimuli are at their greatest at moderate levels of arousal: at higher and lower levels, there is a decline in liking. The arousing properties of stimuli are primarily a function of the

'collative variables' on which they vary, such as their complexity and regularity, and this enabled Berlyne to make some direct predictions about people's likes and dislikes for various classes of stimuli.

A good deal of research has tested the validity of the inverted-U hypothesis of the field of music, and it has generally received empirical support (e.g. Heyduk, 1975). One of my own interests has been in the effects of age on musical likes and dislikes, and the inverted-U theory proved to be useful in explaining this relationship (Hargreaves and Castell, 1987). However, one of the more exciting developments in this area is that research which takes into account the social context of music listening. People listen to music in shops, restaurants, in the home and in railway stations rather than in a social vacuum, and some new studies conducted by Adrian North in the Leicester Music Research Group are taking this into account. Studies of the effects of music in television advertisements (North, Hargreaves and Binns, 1995) and in aerobics and yoga classes (North and Hargreaves, in press), for example, enable direct manipulation of arousal levels to be undertaken, and the inverted-U hypothesis is being used in conjunction with other theoretical constructs to explain the results.

The second approach derives from behavioural psychology and is probably most prevalent in music education research in North America. Research has been conducted on the use of music as a reinforcer for learning and other desired aspects of children's behaviour, for example (e.g. Wilson, 1976), as well as on the use of reinforcers such as praise, feedback and attention in the context of music lessons and band rehearsals (e.g. Madsen, 1982). Several studies of musical preference and taste derive from the behavioural approach (e.g. Greer, Dorow and Randall, 1974), and many of these employ the notion of the reinforcement value of music.

The third area might be called attitude and opinion surveys, and these tend to be ad hoc studies rather than deriving from any consistent theoretical position; the sprawling literature has been reviewed by Abeles (1980). Some use standardized scales and inventories whereas others have devised their own measures - but since these studies vary very widely in terms of their subject groups, range of musical styles employed as well as methodologies it is difficult to form any kind of coherent picture.

Studies in the fourth area, which I have termed 'sociological studies', typically also use measures of the type employed in attitude and opinion surveys, but are often grounded in a specific theoretical rationale. Perhaps the best examples are those studies which are based on the concepts of 'taste cultures' and 'taste publics' (see e.g. Fox and Wince, 1975). These view musical preferences as being embedded in broader sets of social attitudes, which are themselves a function of age, social class, parental background, income, and so on, and these are clearly influenced by different mechanisms of stereotyping (see e.g. North and Hargreaves, 1995).

The fifth area, which I have termed cognitive-developmental studies, are broadly derived from Piagetian theory in that they explain age-related changes in preference to broader features of children's change with age. I mentioned the stage issue earlier as one of the key theoretical problems to be faced in this area, and the question as to whether or not stages of artistic development exist is discussed by Hargreaves and Galton (1992), who propose a descriptive phase model. It is not appropriate to go into the details of this here, but it is important to explain that the five phases of the model (the sensori-motor, pre-schematic, schematic, rule systems and professional phases) are based on empirical data from research in all art forms, principally music and the visual arts. The model suggests that there are indeed characteristic ways in which children engage in artistic activities as they get older regardless of the artistic domain. One of the main areas of research has been on the development of sensitivity to artistic style, including music (see e.g. Gardner, 1973: Castell, 1982). There is a good deal of evidence that children's aesthetic perception does change predictably with age, and this is clearly an area of considerable relevance for the arts teacher.

The sixth and final area is what I have called dimensional/repertory grid studies: there are numerous studies of artistic perception which have used powerful psychometric techniques such as factor analysis and cluster analysis to investigate the main dimensions with which people respond to art works (see review by Hargreaves, 1986). Rather than repeating the review, I would instead like to provide a fairly lengthy illustration of some of my own empirical research which uses this approach (see Hargreaves and Colman, 1981; Hargreaves, 1982; North, Moulson and Hargreaves, 1995). The basic technique employed in this research is derived from repertory grid technique, which is grounded in George Kelly's personal construct theory (see Fransella and Bannister, 1977). In essence, listeners in these studies were played short musical excerpts in sets of three, and asked 'in what way do you think two of the three alike and thereby unlike the third?' This is a well-known technique which was developed by Kelly as a means of eliciting the constructs which people use to make sense of their world: and we were essentially adapting it in order to assess what were the main constructs or dimensions according to which people make sense of different musical styles.

In a first study, 44 randomly selected adults were played excerpts from 18 very varied musical styles including classical, folk, various popular styles, church music etcetera, and their responses were collated and divided into five categories. Figure 1 lists these five categories, with examples of each, and also shows the frequency of occurrence of each as a percentage of the whole. 13% gave 'Categorical' responses: they provided 'labels' for styles such as 'pop' or 'folk'. 33% gave what we termed 'objective-analytic' responses, which were defined as those involving an analytic description of the elements of the extracts. 21% gave what we have called 'objective-global' answers, which involve objective descriptions of overall characteristics of the music rather than its elements. Another third gave 'affective' or emotional reactions to the effects produced by the music upon them: and a very small proportion of them gave extra-musical associations to the music.

1	Categorical (e.g. 'pop', 'folk', 'classical')	13%
2	Objective-Analytic (e.g. 'played by strings', 'fast', 'syncopated')	33%
3	Objective-Global (e.g. 'American', 'religious', '20th century')	21%
4	Affective (e.g. 'cheerful', 'weird', 'horrible')	33%
5	Associative (e.g. 'birds singing', 'the sea', 'a log cabin in Canada')	<1%

Figure 1. Categories of response to musical excerpts, and their frequencies of occurrence.

Apart from the relative frequencies of occurrence of these categories, an interesting finding was that the tendency to give 'objective-analytic' responses was inversely proportional to that to give 'affective' ones: people seemed to make either technical, evaluative judgments or more emotional ones - although this turned out to be affected by the listener's level of musical training. To follow this point up, we repeated the study with a group of 126 children in three age groups, namely 7-8 years, 9-10 years and 14-15 years. The study employed the same 18 pieces as the previous one, but these were presented as nine pairs rather than in triads as some of the younger children proved to have difficulty in understanding the three-way comparison.

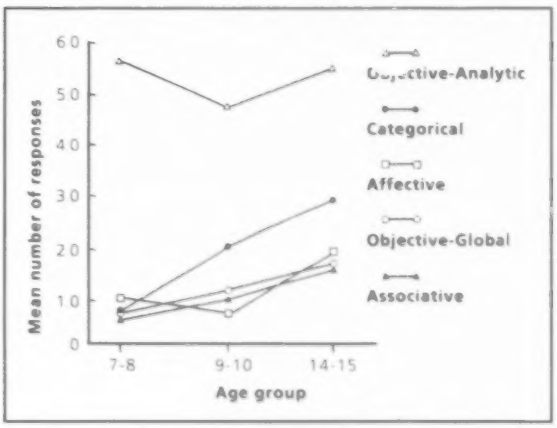

Figure 2. Mean number of responses in each category for each age group.

The results are summarised in Figure 2: in essence, there were two main findings. The first was that tendency to analyse the excerpts in terms of 'objective-analytic' responses was by far the highest in all three age groups, although the Figure shows a dip in the middle age group, i.e. at around 9-10 years. The second is that the tendency to produce 'categorical' responses by attaching a stylistic label rose consistently with age, which supports the idea mentioned earlier of a developmental increase in stylistic sensitivity over this age range. Our speculation was that, 'younger children may be more "open-eared" to forms of music regarded by adults as unconventional: their responses may show less evidence of acculturation to normative standards of "good taste" than those of older subjects.' (Hargreaves, 1982, p. 51)

This notion of 'open-earedness', i.e. the ability to listen to and express liking for a wide range of musical styles, was taken up more recently by Albert LeBlanc, who has proposed a model of its development across the life span (LeBlanc, 1991). His model has four main components: that young children up to the age of eight years or so are relatively 'open-eared': that this tendency declines sharply as they move into adolescence, when there is a marked increase in liking for pop and rock music;

that with further progress into early adulthood the range of tolerance for different styles widens once again; and that there is a further decline in 'open-earedness' in old age. LeBlanc's model derives mainly from his extensive review of the literature, but is beginning to receive some empirical investigation. (e.g. Hargreaves, Comber and Colley, in press)

CONCLUSION: MUSIC TEACHING, MUSIC LISTENING, AND THE SOCIAL CONTEXT

The title of this paper indicates that I took it by no means for granted that studies of aesthetic responses to music necessarily did have any implications for arts education when I was asked by the conference organisers to explore the question. In the first part I have outlined some parallel practical and theoretical issues, including the complex questions of the relationship between the production and perception of art, and that of developmental progression, within the educational context. In the second part I have undertaken a very broad-ranging review of the major types of research which have been conducted on aesthetic reactions to music, illustrating some of these with my own studies.

Bringing these two parts together demands a consideration of the aims of music and arts education, and we can get some help by looking once again at the rationale behind the British national curriculum. The music curriculum guidelines for 'Listening and Appraising' at key stage 3 (up to 14 years) include the recommendations that, 'Pupils should be taught to ... identify ways in which personal response is influenced by the environment in which music takes place and by the use of musical elements and resources; relate music to its social, historical and cultural context ... e.g. identify conventions used in different times and places; identify how and why musical styles and traditions change over time and from place to place, recognizing the contribution of composers and performers; express and justify opinions and preferences, using musical knowledge and vocabulary.' (DFE, 1995, p. 7)

In other words, we should be producing listeners who have a knowledge of musical traditions, styles and conventions which go beyond their own localized experiences, and who can appraise new experiences in an informed, critically aware and unprejudiced manner. As rapid technological advances give rise to increasingly rapid and effective communication between the members of the 'global village', it becomes even more important for individuals to maintain tolerance, enjoyment, and critical understanding of the wealth and diversity of artistic and cultural experience which is available world wide. There are two clear messages for education: that teachers should strive to encourage 'open- earedness' and sensitivity to a wide range of styles and idioms on the part of their pupils: and that in doing so they need to set these styles and idioms in the diverse cultural and social contexts within which they occur.

Both of these messages relate directly to some of the research findings discussed earlier. For example, the 'dip' in 'open-earedness' which LeBlanc attributes to the

teenage years must be understood in terms of the broader social network within which musical style preferences exist. Talking to my own teenage sons confirms that musical style preferences are about much more than the sounds themselves: they can hold the key to clothing styles, to friendships, and to other leisure activities. Your identification as a fan of grunge, indie, rock, heavy metal, rap, house, dance, jungle, soul, swing, acid jazz, or chart pop music (the prominent British styles in early 1995) is a crucial guide to many aspects of your personality and life style.

Musical dislikes are often more powerful and clearly expressed than musical likes, and an awareness of research findings such as this should be vitally useful to teachers in trying to break down the sterotyping and prejudice which determine many musical dislikes, thereby fostering open-earedness and critical awareness. It is clear from a good deal of classroom research that teachers formulate their own 'working theories' of children's development (see e.g. Hargreaves and Galton, 1992), and that these working theories can exert a powerful influence upon the actual development of individual pupils. These working theories should be informed by the best research findings and theoretical models which are currently available.

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David Hargreaves

David Hargreaves, (BSc, PhD, C.Psychol, FBPsS) is Reader in Psychology at the University of Leicester and Visiting Professor of Research in Music Education at the University of Gothenburg, Sweden. He was educated at the University of Durham, and was Lecturer in Psychology in the Department of Adult Education, University of Leicester, between 1972-1975.

He has held Visiting Research Fellowship at the University of Illinois at Chicago and at Florida State University, USA.

His main research and teaching interests are in developmental psychology and the arts, particularly music. He is co-director of the Leicester Music Research Group, which has received financial support from the ESRC (the DELTA project), the Leverhulme Trust (Gender and Computing in the Humanities), the Nuffield Foundation, and the Leicester - Loughborough Universities joint research fund.

He is Editor of Psychology of Music, Associate Editor of The Psychologist and the Council for Research in Music Education Bulletin, and current Chair of the Research Commission of the International Society for Music Education (ISME).

His books include *The Developmental Psychology of Music* (Cambridge University Press, 1986), *Children and the Arts* (Open University Press, 1989), and *Developmental Psychology and You* (with Julia Berryman, Martin Herbert and Ann Taylor, Routledge and BPS, 1991). He is a keen jazz pianist and composer.

8 PETER HERMANS

Why Assess?

Any theory about educational assessment is implies a theory of goal setting in education. The same applies to assessment practices: they reflect the goal setting practice in a given educational system. It is impossible to discuss the purpose of assessment without taking into account the politics of setting goals, standards and attainment targets.

I am an assessment specialist which means I am part of the informal, intangible network that is responsible for at least a part of the actual subject matter in education. Curriculum developers, educational publishers, authors, test developers; we are what you might call the educational designers (mafia). For us, goals, standards and attainment targets function more or less as a 'design brief' and therefore it is crucial that standards leave us as little room for interpretation as possible and at the same time allow for a wide variety of designs.
Teachers find themselves in position similar to that of the educational designers. Goals or standards form the basis of everyday classroom practice and it is assumed that art teaching will benefit from clearly specified objectives describing 'what pupils should know, understand and be able to do' or 'specific enough objectives for pupils, teachers, parents and others to have a clear idea what is expected'. On the other hand art education has the reputation of preferring Liberty Hall over any form of commitment towards national standards or attainment targets.

Policy makers would like to see goals defined in a such way that will allow them to control different aspects of the educational system, including the curriculum itself. In fact, one and the same set of goals and standards will always have to serve at least two basic purposes. For teachers, educators and developers they serve as specifications of intended learning effects; for policy makers they should provide the arguments for decisions regarding the spending of public expenditures.

Because of these different interests, most educational goals are the ultimate compromise. More often they are meaningless, global descriptions of educational wishful thinking. Before getting into the roles and purposes of assessments in the arts I would like to briefly discuss some of the problems related to goal setting for the arts, because it might also illustrate some of the issues I just mentioned. I will concentrate on two recent goal setting efforts: the American National Standards for Arts Education and the Dutch Attainment targets for the Basic Education Curriculum.

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In december 1993, John Steers, Ken Robinson, myself and four others were invited to discuss the draft standards prepared by the National Committee for Standards in the Arts. The report of the committee contained almost 700 achievement standards for four subjects, 339 standards for primary education and 347 for secondary.
A similar situation occurred during the process of developing attainment target for the Dutch Basic Education Curriculum: the first draft of the report contained 1187 attainment targets for fourteen subjects.

When invited to define goals, educators tend to construct the ultimate, comprehensive course description. The amount of text also tends to increase because there is a tendency to prevent and banish anything that is considered to be outdated, not done or politically incorrect in actual educational practice.
On both occasions (American standards/Dutch attainment targets) the first drafts resulted in highly prescriptive standards.

Another characteristic of many standards for arts education is that they can easily be applied to other levels of arts education than the ones they are designed for. Especially the American effort shows how hard it is to describe growth and development in the arts. In the final report on the American standards, many of the original standards for advanced and proficient levels are replaced by horizontal arrows, pointing to the next higher level (or in the case of the advanced level, towards infinity).

These arrows should be read as: the standard appearing at the lower grade level is not repeated, but students at this grade level are expected to achieve that standard, demonstrating higher levels of skill, dealing with more complex examples and responding to works of art in increasingly sophisticated ways. In other words; we don't exactly know what it looks like what it is to be proficient, all we know is that there should be evidence of a growing sophistication.

At first sight the difficulty arts educators have with defining goals is just a question of vocabulary or, to be more precise, the lack of an appropriate vocabulary, but there is more. The hybrid origin of the terminology we use to define the different levels, for instance. A terminology derived mainly from socialization theory, general developmental psychology and scientific epistemology. Very rarely differences between levels are formulated in a terminology appropriate to describe artistic development. Many educational goals for the arts are mere descriptions of activities and thus fail to convey any level of attainment. Furthermore, too many goals would apply to any subject.

The linguistic brute force found in many goals, standards or attainment targets for the arts does not strengthen the legitimacy of visual arts education nor does it reinforce its academic importance as some have suggested.
'Initiate, define and solve challenging visual arts problems independently, using intellectual skills such as analysis, synthesis and evaluation' might look impressive on paper, but I doubt if anyone, after reading a series statements of this kind,

would have any idea of what visual arts education looks like in a classroom.

One important lesson to be learned from these two efforts is that art education should settle for a the smallest number of clearly formulated goals possible, instead of a seemingly comprehensive complex framework of standards describing in detail what every student must be able to know and do at various levels of education or age levels. The English and Welsh National Curriculum for Art and Design are good examples of this principle, except maybe for the number of attainment targets in the English version (two!).
Furthermore I would suggest that, for the time being, we avoid trying to distinguish levels of attainment within the framework of standards or attainment targets itself. Instead, 'programmes of study' could serve as indicators. Another model would be to catalogue, publish and continuously discuss samples of student work, which could even be collected in the course of some large scale assessment programme. Each level that is distinguished (or has to be distinguished) could then be represented by samples of student work instead of words.

The goals, standards and attainment targets we agree upon, must allow teachers to assess student performance in a valid and reliable way, as well as enable teachers and schools to evaluate their programmes and teaching practices. Furthermore standards should give policy makers a clear idea of the kind of information they need in order to come to valid assessments of the quality of the educational system and the place of arts education within that system.

Generally speaking, art education is based on a model where students are taught about art through continuous, individual assessments of the work they produce. Art teachers monitor the achievements of the individual student by periodically reviewing the student's work, giving individual assignments and probably most important, by uncountable, informal assessments that are part of the daily 'small talk' between students and their teachers about work in progress.

The teaching of critical skills in art education is a multifaceted and in origin very complex process. On the one hand within the framework of teaching art criticism and aesthetics we teach students to critically reflect upon the works of professional artists and designers.
In the course of making art or performing we expect students to continuously, critically assess their own 'artistic' process and the evolving product. The basic assumption is that the art production of students in general education is guided by processes of a similar nature to those in professional art training.
I will not discuss the question whether this is a valid assumption or not. I do want to question whether the informal and formal assessments in professional art training can serve as a model for these kinds of assessments in art education in general education.

In professional art training, almost all formal and informal assessments tend to be highly personal, emotionally laden experiences for both the student and the tutor or

teacher. Assessment in professional art training is so very personal in nature that it is hard distinguish what exactly is assessed: the student's personality or self or his/her work or performance.

In many occasions the only model art teachers in general education have for this type of assessment are the numerous assessments they encountered during their own art training. Most art teachers have had little or no training in how to communicate to students in general education about their work. It is something you 'learn on the job' with only one frame of reference: their own experience in art training.

Continuous informal assessment in general art education has to be of a different nature, because we are dealing with different phases in personal, emotional and artistic development of our students. As a consequence, assessments in general arts education will also require a different vocabulary than the one used in art school. Assessments should also be different because students in general education do not consciously and willingly surrender themselves to a 'voluntary infringement' of their personality.

The purpose of informal assessments in arts education is monitoring and guiding progress. In this respect, informal assessment in general art education is no different from informal assessment in professional art training. Another similarity is that development or growth is considered to be a highly personal or individual matter. We should realize however that one of the reasons for this, is that we know little or nothing about artistic development in general (at least in the visual arts). In fact, I doubt whether a general theory of artistic development would be acceptable for many art educators even if research findings should ever give rise to such a theory.

A form of assessment traditionally integrated with education in the visual arts is the assessment of portfolios. Whereas assessment in the arts for a long time was considered to be non-reliable, subjective and spurious in nature, portfolio assessments are suddenly used as examples of good, authentic assessment practice for many other subjects in education.
Apparently, many educators suddenly realized that classical tests did not represent the intricate processes that are involved in the outcomes they expect or hope for. More and more, educators seem to be convinced that portfolio assessments tell a richer and truer story of a student's competencies than classical tests do.

In my opinion, it is just the instrument that suddenly attracted educators in other disciplines, not the purpose of portfolio assessments as such. Portfolio assessment are long term assessments. Just as the informal assessments discussed before, they are part of a culture of continuous assessment and guidance. Portfolio assessments should only serve one purpose: monitoring progress. The information derived from portfolios should primarily be used to improve the quality of the artistic learning of the individual student.

In the last three decades, the place of art education in many educational systems has shifted from a marginal Friday afternoon activity to a genuine school subject. In some educational systems, the arts are included in large scale assessment programmes and have become examination subjects.

Almost at the same time the idea of a discipline based art education found a growing support in the United States, opposition among American art educators against educational testing in the arts emerged. On the one hand the opposition against educational testing in the arts is explicable because of the nature of american educational testing itself. On the other hand, for a long time, many art educators have maintained the position that any form of assessment in the arts was alien to the teaching of art itself because:

- Grading children's art products often creates anxieties and these anxieties hamper creative expression.
- Art is a personal thing, it is a unique expression of a unique individual, it has no set rules and therefore cannot be compared or evaluated.
- There is no empirical test for aesthetic quality in art, hence there is no justification for judgments about quality in art.
- Evaluation of a child's art by an adult more often than not rests upon criteria that have little or no meaning or relevance to the child. (Eisner et al., 1966)

In many educational systems, art educators themselves never made a serious effort to establish an idiosyncratic tradition of testing and assessment in the arts.

When assessment should serve purposes such as selection, placement, qualification or allocation of individual students, the basic issue is that the assessment should enable the society to decide in a valid and reliable way who will pass and who will not; who will obtain a diploma and earn the right to pursue further education or a certain socio-economic status.

Inclusion of the arts in traditional large scale assessment programmes is problematic, not just because the arts have made no real effort in constructing an idiosyncratic mode of assessment or because of resistance among art educators themselves. Another important reason is that in most occasions traditional large scale assessment do not allow for modes of assessment that are deviant form the standardized written test format.

Many large scale educational testing deals with content on a one-to-one basis. Part of the test construction routine is a content analysis. The contents of a course or programme are represented by a matrix: the table of specifications. Most of the time content analysis turns out to be nothing else but dividing subject matter into the smallest units of instruction possible.
On the horizontal axis of the matrix number of behaviours are classified in hierarchical order. Behaviours carrying labels such as: analysis, interpretation, reproduction, etc. The traditional routine in test construction is to divide these rather complex behaviours into sub-behaviours and again try to divide these into sub-sub-behaviours and so on. This 'atomization' of human behaviour lies at the

heart of most tests used in large scale testing and assessment programmes.

Tables of specification guide classical test construction. The cells of the table are supposed to represent educational objectives. Questions are written to match the content of each of the cells. Series of questions are pretested and those questions which are statistically spurious will be dumped.
The remaining questions are moulded into a test. Tests usually contain about forty closed format questions and the multiple choice format probably is the most widely used type of question of its logistical (computerized scoring) advantages.

Since it is practically impossible to incorporate assessment of performance units in most large scale testing programmes for logistic and financial reasons, more complex performance skills are sometimes represented by a number of small exercises where students demonstrate a number of sub-skills. Sometimes even pencil-and-paper tests which claim to test 'knowledge about skills' are used.

Opposition towards this kind of testing is understandable when one realizes that teachers will inevitably teach to the test and the type of test used will eventually determine the shape of education. There is ample proof that because of the limited scope of some large scale assessments, sub-skills or knowledge of facts have more and more determined the contents of the curriculum and as a result the complex skills have become less and less important. And since tests inevitably 'cast their shadows on all prior work' (Wiggins), the teaching of the complex skill itself eventually will be no longer part of the curriculum.

A risk of negative backwash should be anticipated especially when considering the possibilities of having examinations in the performing arts. Central to the idea of examinations is the objective assessment of individual student performance. At least a part of the learning process in the performing is based on interaction with other, actors, dancers or musicians.
One of the American Standards for Music states that students should be able to, 'perform an appropriate part in an ensemble, demonstrating well developed ensemble skills.'
Whose performance is being assessed when we observe the ensemble playing? In my opinion, there is no way individual student performance can be assessed because in this case, the performance of the individual student is to a large extent influenced by, but also dependent on, the performance of other students playing in the ensemble.
It is tempting to design a special mode of ensemble playing in order to be able to assess individual student performance. One could for instance control the performance of the other musicians involved by prerecording their parts. If one should decide to do so, one accepts that important aspects of ensemble playing are left out. If such assessments are included in an examination which is by definition a high stakes assessment, there is a risk that at least part of the generic ensemble playing in the curriculum will be replaced by a 'karaoke' model.

Large scale test design tends to change complex outcomes into 'atomized' and very often, simplified constructs of complex skills. To quote Elliot Eisner, '... such approaches and the methods of inquiry that are regarded legitimate within their borders, somehow fail to tell the whole story. As a result of the partial view that such methods provide, a biased, even distorted picture of the reality that we are attempting to understand and improve can occur.' (Eisner, 1979)

It is difficult to fit arts education into large scale assessment programmes, especially in the case of national examinations because this type of assessment is by definition norm referenced. Traditional educational tests are a sort of high jump contests. Central to the taking of the test but also to the construction of the test is a pass/fail mark, this one hurdle that awaits students at the end of the track. Art teachers are not really interested how students perform on norm referenced assignments because their everyday assessment practice serves a different purpose: tracking growth and progress of the individual student.
'If we want to know if a child has gotten taller, it is fruitless to find out if he is above average in height. The analogy holds true for evaluating achievement in art.' (Eisner, 1963)
Contrary to the traditional educational tests, assessment in the arts is basically criterion referenced, or to maintain the metaphor, generic assessments in the arts are more similar to long jump contests. Everyday assessments in the arts are not aimed at gathering information about student achievement in relation to a specific predetermined level of performance. Genuine assessments in the arts allow students to show in a multifaceted way what their qualities are.

Many of us have become quite familiar with examinations in the arts. In the beginning, most Dutch art teachers were not particularly keen on the idea of having examinations, but they gradually accepted them as a 'necessary evil with which they had to live. They were well aware that their subject would lose all credibility in the eyes of most parents and their staffroom colleagues if they did not have the respectability of being examined.' (Taylor, 1986)
There is a more positive way of looking at examinations in art education. As the history of the Dutch Pre-University examinations in the visual arts and the British A-level exams have shown, having well designed assessment programmes of this kind can have a positive impact on the teaching of art

Ron MacGregor's description of art education in British Columbia published five years ago, would apply perfectly to Dutch art education twenty-five years ago before the introduction of the examinations:
'Art teachers could literally teach whatever they wanted to teach and assessment was based on criteria which were expressed ephemerally and subject to idiosyncratic interpretation. Conditions varied from school to school and teacher to teacher, and often it was difficult to determine what role a candidate had had in producing the work exhibited, from what source the imagery had been derived, or exactly what the candidate had learned.'

Dutch visual art education has improved in many ways because of the examinations. Most important effect of the examinations has been that it has given teachers the opportunity to improve their teaching. Through their role as examiners and external judge, assessing the work of students at other schools, teachers implicitly assess their own teaching. The examinations have enabled teachers to discuss differences in student performance in relation to differences in curricula, ways of teaching and teaching facilities. Furthermore, being part of the examination system has also helped the Dutch visual arts to secure a reasonable amount of teaching time in the curriculum.

Including the arts in examination programmes can also have negative effects. Recently a number of British art educators have expressed their concern about a tendency towards conformity in student studio work produced in the course of examinations.
Examinations do have a civil effect and passing or failing an exam is vital for the future of any student. Here again, we see that the purpose of the examination as such and the use of examination results influences assessment practice. Because of the large scale character and the tendency to compare quantified results, a basically criterion referenced mode of assessment tends to change to a norm referenced one.

Another possible negative effect of getting involved in examinations concerns the relation between format of the standards in relation to components of the assessment programme. Basically, the Dutch examination programmes and attainment targets etcetera for the arts are arranged in two domains: a practical studio/performance oriented domain and a more reflective domain, including elements of history, criticism and aesthetics.

In perspective of large scale assessments it is very tempting to deal with the more theoretical goals by including a forty question pencil-and-paper test in the assessment programme. However, such an approach would deny the vital role of reflective thinking in the more practical attainment targets. It separates the thinking from the doing.

What is more important though, is the negative backwash a test such as this could cause. Teachers will teach to the test and there is a risk that the entire critical domain will eventually be turned into a separate course or programme. A separate course which is much easier to teach and the result could be courses like this eventually replacing the studio and performance art education which to some of its critics is just a noisy, dirty, fashionable and therefore superfluous activity.

Besides examinations there is one other type of large scale assessment programme that could be important for the arts. Programmes aimed at assessing the quality of education and the curriculum: National Assessment of Educational Progress and other curriculum evaluation programmes.
The moment art education becomes an integral part of a curriculum, information

about the quality of art education should be available in order to be able to arrive at valid decisions, not only about the art education curriculum itself but also about the curriculum as a whole.
The field of art, like other fields of study, has objectives and if evaluation is not made, curricular changes can only occur by whim or fancy without the type of evidence that evaluation of student performance can supply. (Eisner et al., 1966)

NAEPs are just as hard to design and develop as examinations, but there are major differences.
- A NAEP is not solely aimed at the assessment of individual student performance. There is no norm referencing of individual student scores involved.
- NAEPs are anonymous, the information gathered concerns the quality of education in a specific subject as a whole, not individual schools or teachers.
- NAEPs can be based on relatively small samples and could therefore include more sophisticated, complex tasks.
- Because assessment of individual student performance is not the primary or only aim of NAEP, it could also include assessments of more intricate, but intended learning effects related to attitudes and beliefs.

In my opinion it is no longer valid to design a NAEP for the arts that leans heavily on the assessment of student performance. Whether it be exemplary samples, portfolios or even coursework, the assessment of student performance will not yield all the information needed to validly assess the quality of art education.

I would propose a basic design for a National Assessment of Educational Progress in the Arts that includes at least the following components:
- analyses of the teacher-student interaction that takes place during assessments of student work and its effects on the learning process of the student
- assessments of structured portfolios covering work over a relatively short period of time, based on standardized assignments
- curriculum analyses
- analyses of attitudes towards art and beliefs about art of students as well as their teachers.

Elements of this design will be included in try outs of the first Dutch NAEP for the Visual Arts and most of the instruments we will need in this programme will have to be developed especially for this purpose. I think it is a unique chance to design a tailor made large scale assessment programme for the visual arts. You will just have to be patient because it will probably take a few years before we can show you the first results.

If the arts are to be included in large scale assessment programmes, the first condition should be that the programme can be designed in such a way that the instruments used (the tests and tasks) will cover all of goals, standards or attainment targets agreed upon. Goals should not be banned from the assessment programme because of practical, financial or other considerations.

Arts education assessments will have to be designed as 'packages' that might contain the more classical type of educational tests, even those in multiple-choice format, but also performance assessments, portfolio assessments and research assignments; all depending on the information we are looking for or the purpose of the test.

If we want to be able to design assessments for the arts that would fit into a large scale assessment programme we will need standards and attainment targets that acknowledge and balance the different perspectives learners and teachers take when dealing with producing art, art criticism, art history and aesthetics.
We need clear descriptions of how learning to tackle problems of art production and problems of representation relates to a growing sophistication of perception and an increasing number of aesthetic experiences. A balance is needed between notions of socialization, general and educational development on the one side and effectiveness of these different perspectives in different stages of children's artistic development on the other.

As arts educators, we should not only question the educational purposes of assessment in the arts, it is also vital to consider some of the political issues relating to the position of the arts in education, the quality of art education and the use of data and results. The results will provide a partial and distorted view of the educational reality, if test scores are used to paint a picture of the quality of the curriculum, art teaching or art education in general.
Many large scale assessments serve but only one purpose: ranking students. Improving education might be an important effect but it is not the prime goal.

Misuse of assessment data is not always considered to be politically incorrect. Various parties in the educational arena have different interests and, on too many occasions, one test or one type of assessment is used for a number of different and sometimes incompatible purposes. Including arts education in large scale assessments can be advantageous in many aspects. It can also have negative effects because large scale assessment programmes are by definition major factors in the balancing of power over education.

The American Code of Fair Testing Practices in Education states that test users should first define the purpose for testing and the population to be tested.
The Code also states that test developers should 'accurately represent the characteristics, usefulness and limitations of the tests for their intended purposes'.
In the case of large scale assessments 'users' could be defined as 'teachers' or 'schools' but, if assessments are the result of or embedded in the legislation, the legislative body should be seen as the 'user' in the first place.

Defining the purposes of assessment in art should be the prime concern for users as well as developers of these assessments. As far as art education is concerned, it should be clear beforehand that one single test or type of assessment will never yield all the information necessary to serve all purposes. Multiple assessments will

be necessary and a variety of assessment tools will be needed.
Or, to quote an American classroomteacher, 'Taking the temperature of a patient will do nothing to cure him, no matter how often and how accurately you take that temperature.'

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Peter Hermans

Born 1952. Teaching degree in Art & Design and Art History at Amersfoort Teacher Training College of Visual Arts Education (1970 - 1976). Employed by the Dutch National Institute for Educational Measurement (Cito) from 1976 - present day.

1976 - 1982: design and development of experimental tests for art history and art criticism for junior and higher secondary education (MAVO and HAVO) and design and development of experimental tests for art history / art criticism and studio art for Pre-University Education.

1979 - 1987: Supervision of construction of the Nationwide Written Final Examinations in art history / art criticism.

From 1987 onwards: senior staff member of the 'Qualifications for Basic Education' project. Design and Development of Assessment packages for Basic Education.

1987 - 1990: seconded to the Dutch Foundation for Curriculum Development as secretary of the Committee for the Development of Attainment Targets for Art and Design Education.

1987 - 1991: member of the Committee for the Development of Attainment Targets for Technology Education.

1989 - 1993: external assessor of the teacher training program at Arnhem Arts College.

From 1993 onwards: design and development of the Dutch National Assessment of Educational Progress in the Visual Arts (end-of-primary education, due 1996).

From 1995 onwards: staff member of The School for Tomorrow.

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9 NORMAN H. FREEMAN

Art Learning in Developmental Perspective

Art education has several interests to protect. It is vital, for instance, that children be given studio experience and produce as interesting art works as they can. Yet it is not the primary function of studio sessions to add to the national corpus of pictures. The purpose is to provide the children, and their peers, with public evidence of their engagement with art. My job as a psychologist is to try to puzzle out what kind of reasoning is in children's minds when they engage with art. For that purpose it is sometimes necessary to get children out of the studio, and to try to detect what **general internal resources** children have that they can call on. I do not intend to belittle the role of the teacher as an external resource, or what the teacher and the child can develop in common. However, an external resource will only have an effect if there is uptake by the child; and the concern is to say something about the resources that make the uptake possible. At this stage, it does not matter much what one calls those internal resources. Certainly a full account of them would have to appeal to concepts of imagination and art discipline. Some of the research can be found discussed in Freeman (1994; 1995) and in Freeman and Sanger (1993), and one of the full datasets is reported by Freeman and Sanger (1995). In this talk, I want to present the issues, focusing on the nature of the approach more than on the data analyses.

A psychologist is supposed to do a little more than to 'diagnose' the internal resources that children bring to a situation. The other half that psychologists are supposed to do is to describe the situation and classify it into those aspects that are difficult for children to understand, and those aspects that are easy to understand. For example, when you look at a picture, do you know what your feelings are? It is often difficult to use reflective awareness to understand your own feelings when looking at a picture. It may be similarly difficult for children of any given age, or it may be that the children at that age are under the illusion that feelings are transparent to the person who is experiencing them. It is important to know which of those is the case when discussing pictures with any age group. There has been a fine text written by Harris (1989) on the slow dawning of comprehension of emotions in general. Again, do you know how you personally go about interpreting a picture? Sometimes, it is true, one is indeed acutely aware of the knowledge base on which one draws during interpretation, but it is difficult to explain the operation of interpretative processes. If it were easy to explain interpretative processes, psychological research would be a good deal easier than it is. If explanation is difficult for us as adult, it is more difficult for us as children. We have, in Bristol, been working on what resources the children have, what they find easy and

difficult about pictures, what they **know** about what is easy and difficult about pictures. As far as I am concerned, such judgmental awareness, no matter how rudimentary it may be in a young child entitles one to say that that child is operating in the mode of an art critic. (See also Golomb, 1992)
Some of these children, when they grow up, will become very skilled amateur art critics in their spare time.

In sum, this talk is not about picture production, nor is it about children's responses in the presence of particular pictures. That is to say, we are not focusing on the child in the role of artist or in the role of beholder, but on children's **general ideas** on what pictures in general are. One way of putting the matter is to say that children acquire a **theory** of pictures. If some of the aims of art education are to help children develop a love of art, an understanding of art, and a sympathy for the efforts of artists, we need to know how to talk children through the issues. One way to address children's concerns is to address their theory. So here we are going to begin to diagnose what is in a child's theory of pictures. The important word is 'begin'; for children have very rich and complex minds, and we cannot give a full account. One false step in diagnosing the basics would have a snowball effect and research would get further and further from reality.

Let us begin at the beginning by imagining that we simply know nothing at all of what a picture is. That presumption of ignorance is a traditional game that some researchers play at the start of a series of studies. One could simply ask primary-school children of various ages, 'What is a picture?' (See Gardner, Winner and Kircher, 1975)
It is no surprise that one gets fragmentary and rather superficial answers. But that does not matter, for the initial aim is not to diagnose children but to diagnose what properties are in these mysterious objects called 'pictures'. Remember, at this stage we are pretending that we know nothing about picture properties and that the children are the sole experts. To cut a long story short, if one collects up the fragments of answer, it is easy to see that a few basic ideas tend to come up repeatedly. Children in primary school mention that you can see what a picture is **of** or **about**, so that suggests that there is something beyond a picture that maybe a picture triggers a recognition of. Not all pictures do that, but some certainly do. Again, children tend to use the language of action, conveying the idea that someone making a picture is something that someone does, so some notion of human agency is lurking there somewhere. Thirdly, children often say that pictures can be nice to look at, so some notion of a beholder's enjoyment emerges. Finally, children may try to convey some idea that pictures can be interesting and special in some way. Even from such a limited sort of survey one gets the idea of traditional concerns lying behind what children may say, concerns about truth and fact, artefact, beauty, and significance. Despite the efforts of postmodernism, these traditional concerns seem to be alive and well.

Now take the next step. Choose any one of the concerns. I suggest we take the topic of 'beauty' to start with. Remember that we still officially know nothing about

pictures beyond the fact that some children have raised the notion that some pictures can be beautiful. There may seem to be little to say about pictorial beauty in general; but in fact we are not at all interested in trying to get extended disquisitions from children but to get small comments that can be classified. There are actually rather few possibilities in a classification scheme for beauty. First, we want to know whether the children think that beauty is an objective property of some pictures in perhaps the same way that it is an objective property of some pictures that they are loaded with paint. Secondly, if they do not think that, perhaps they think that beauty comes from whatever it is that a picture relates to in the world; perhaps to them a picture is rather like a mirror, reflecting the beauty of the world to which it is 'pointed'. (See Parsons, 1987)
Again, maybe children think that the agent, the artist, beautifies a picture somehow regardless of what is depicted. Thirdly, maybe children think that beauty is in the eye of the beholder, and only in the eye of the beholder. It does not matter whether all such ideas are largely correct or grossly mistaken. What matters is whether such ideas enter into the way in which children **reason** about pictures. If one or more of the above ideas were to hold a powerful place in a child's pictorial reasoning, it would be useful for an educator to know that fact in order to stage-manage a meeting of minds around art.

Now let us pause for a moment. We have, so far, staked out two claims. The first claim is that it is possible and desirable to draw out a sort of map within which children's pictorial reasoning may be exercised. This map can take the form of a net in which notions about a picture are caught by virtue of the place of a Picture in a net of relations between World, Artist and Beholder. The proper term for such a net is an 'intentional' net. The term 'intentional' has the technical sense of a relation between two things in which one thing is **about** or **of** the other. (See Searle, 1983) Thus a belief held by a beholder has to be a belief about something; and the object of belief has to be particular in some way (you cannot just say 'I believe frogs', you have to 'believe something **about** frogs'). There is something similar in the case of fears and desires. Pictures are objects or instruments of belief-desire reasoning. A picture is an intentional object in that it might be designed to be about a state of affairs or the possibility of something, and so on. The artist may or may not be an authority on the significance of any individual picture she has produced: false beliefs, rationalisations and wishful thinking afflict artists just as much as they afflict the rest of us, including us as children.

The second claim staked out was that we should start at the beginning and treat children as experts, asking children about what pictures are like. Now, of course, we can use the net as a guide, as was done above for the example of 'Where does beauty come from?' Here is a brief note on what can happen when one starts such research.

If you ask children whether they can tell if a picture is beautiful or not, they either think that is a trick question or they answer that all you have to do is to look at a picture and you can directly **see** if it is beautiful. Accordingly we devised a question

that removed the World from the intentional net: we casually asked, 'How could you tell whether a picture of a unicorn is beautiful if you've never seen a real unicorn?' An easy reply would be 'just look at the picture and see'. However, we have found that such a question often blocks such a simple 'all you have to do is to act as a beholder' reply. Here is a small piece of data (from a little study run with Melanie King) on urban children of 11 years of age. Only five children gave a prompt reply about pictorial qualities (how the picture was drawn, what the configuration was). Those answers were standard and reasonable answers that came from the children's acquisition of knowledge about how to justify a judgment on a picture in terms of the depicting surface. Five children said they did not know how one could tell, and one more child said that 'it's a bit hard'. Why should it be hard to see if a picture is beautiful? An answer might be detected from the remaining five children who focused on whether **unicorns** were beautiful rather than on pictures of unicorns. I suggest that even these sophisticated children regressed to transporting a property across a relation: if a picture is to be judged and you know what the picture is about yet cannot see the referent (i.e. no visual Beholder-World relation is possible), what you can do is to imagine how the World would look if it could be seen, transport the property from World to Picture and thence from Picture to Beholder. That may seem laboured and formalistic; but one of the 7 year-olds we also studied in fact came near to articulating just such a chain of reasoning. The transcript is worth reading slowly to mimic the laboured way in which the child puzzled the matter out. She said she would judge the beauty of the picture, 'By the way I usually sort of think like you could say a princess is beautiful or like, if you want, you could say a tramp is ugly, then you could say a unicorn is sort of more beautiful than a tramp and it's an animal so it's sort of as beautiful as a princess'. Here we have a clear case of pictorial reasoning, along with a resolute justification, in which all the labour is put into puzzling out how something you can never see can be a suitable case for depiction. Once the child has puzzled that out, she then seems to take it completely for granted that the depictable quality, here 'beauty' or 'ugliness', will then automatically appear in the picture. That is very reminiscent of one of the sorts of judgment discussed in Parsons (1987).

Now, let me just summarize for the moment. We have situated a picture in the center of an intentional net, and are trying to discuss pictorial problems with children in order to see how they can run short chains of argument over the net. One approach is to set them 'dilemmas' as in the unicorn example. An unappealing aspect of the unicorn problem was that it verges on being a trick question. However, there are many pictorial dilemmas that are perfectly prosaic. Thus, 'You've got a dog you're very fond of; you love this dog, you think it's great and it falls sick and you're afraid it's going to die, so you call in an artist to paint it. What should the artist do?' Here, the child is invited to take the stance of a patron who will judge of the picture by acting as a beholder (and, in this case, not bothering with considerations of value for money, or size of canvas). The dilemma is, if the artist paints the dog all sick and dying, as is the current state of the world to which the artist is related, maybe that is not what the child wants as a memorial painting. If the artist paints the dog not sick and dying, then the artist would have to know

what the dog looked like before it fell sick. If the artist does not have access to that prior knowledge, then the depiction would be a sort of fiction. Is the child willing to settle for a picture as a sort of fiction acting as a momento? Are there age related changes in children's criteria for that sort of pictorial function? In a small study with Jo Bowden we found that 31/36 children aged between 7 and 11 years resolutely opted for the healthy dog memorial, as against current reality. That near consensus may seem obvious. However, we are not much concerned with whether results look obvious or not for the main point of interest lies in cross-comparing opinions that change with age against opinions that are acquired early and remain for a long time in place. It is not difficult to generate many kinds of dilemma. One can do the same thing for a shop that a child loves, and has deteriorated and become dusty and dirty: one can degrade anything or one can improve anything by suitable repair, rearrangement or patched-in makeup. I have, so far, been able to find little in the literature that provides a solid body of evidence on children's developing knowledge of pictorial dilemmas. What I find interesting is that most teachers I talk to have accumulated a vast store of insight, yet somehow the Art Education literature seems to have missed out on a systematisation of the knowledge. However, there may well be articles that I missed in searching around.

Let us return to the intentional net and ask a simpler question about beauty. Remember what we are after initially is whether children of different ages believe that beauty is objectively inside a picture, gets directly transported from world to picture, gets created by the artist by virtue of the relations of production, or is simply in the eye of the beholder. One way to start is with, 'If you've got something really ugly in the world, can you get a pretty picture of it?' Or, 'If something is really pretty, could you get an ugly picture of it?' The technique here is to attribute one property (here a property of the world), and to then negate it (here in the picture), and ask children about the link. I personally prefer to avoid direct negation since it might sound like a trick question: it seems better to generalise one of the terms to a broad merit term as in, 'If something was really ugly could you get a good picture of it?' We first worked with rural children on a Caribbean island. For these very rural children, considering whether an ugly thing would make a worse picture than a pretty thing, 10/12 eleven year olds automatically said 'Yes'. We enquired why that should be so. In the main, the children's reasoning can be represented as, 'Because if something's ugly, it would be an ugly picture, and an ugly picture is a bad picture, so it would be worse.' That is a very neat and very simple argument: beauty/ugliness is in the world, it becomes transferred onto a picture plane, and then you just map that property onto the terms 'good' and 'bad', so if something is ugly then it must be a bad picture. The majority of the eleven year olds were absolutely clear about this, absolutely clear about their reasons. As far as we could ascertain, the children were not just casting about: they knew what they thought. Turning now to the 14 year-olds, 9/12 of them said, 'No, of course not.' And we would say, 'Why not, how come, if something is really ugly it wouldn't make a worse picture?' And they would convey that the outcome depends on the artist, on skills and enthusiasm. Now that is rather a nice age related shift, because what the children were doing was shifting from just focusing on picture and world to

spontaneously invoking an entity, the picture producer, in a corner of the intentional net. That is one way in which one detects when a generative theory is developing in the mind of a child, when she takes a straight question and gives an answer on terms that had not been explicitly mentioned.

In replications run in England, exactly the same shift occurred. This time, the shift that we are getting at where you move away from 'pictures are of something' to the fact that it is an artefact that determines its properties, with an artist actually doing it, tended to occur between the ages of 7 and 11. I do not think that that three year lag is of great interest in itself. The point of interest lies in whether children from another culture undertake the same shift in reasoning. We had twelve 7 year-olds and twelve 11 year-olds. All the younger children except one said, 'Yes, an ugly thing must make an ugly picture, and that would be bad,' and all the 11 year-olds except one said, 'No, of course not, pictures don't work that way.' That was Londoners. We did it again with variations that do not matter here, with Jo Bowden, with 7, 9 and 11 year-olds, and got the same results basically (a couple more exceptions but the same shift). This conceptual shift seems to be occurring in a small English city, the run down British capital, and a small Caribbean island, and it occurs in the same sort of way, just perhaps on a different timescale. Maybe in urban children who have art classes and a lot of magazines, round about age 9 is the time at which one can pick up really this generative theory really getting off the ground.

The interesting thing is not a single child ever appealed to the beholder. That surprised us only a little. True, it is always open to someone to claim that beauty is in the eye of the beholder. However, it is difficult for children to conceive of looking as a really generative process. In their theory, it seems to be mainly picture, world, artist; and the beholder is just the passive person who comes along and glances at the picture. In the children's theory, it is as though people like us who go to an art gallery leave our minds at home. Perhaps that is exaggerated, but here is a small piece of evidence that shows up the asymmetry between artist and beholder in children's reasoning.

All bar one of the children in the metropolitan study agreed that an artist can shape a picture to make a beholder happy. Pictures have power to give pleasure or pain, and the intentional relation between artist and picture orients an artist towards exercising that power. The question is whether the children regard beholders as being passive recipients of whatever the artist has symbolically invested in the picture. Only 2/12 of the 7 year-olds broke away from such a view. When asked if the way you are feeling affects the way you look at a picture, 10/12 of the 7 year-olds said that a beholder's prior feelings were irrelevant, since what mattered was what was 'in' the picture. In contrast, 9/12 of the 11 year-olds explained that how you felt was very important in the way you looked at a picture. Again, the shift to an interpretative theory of intentional relations was significantly evident.
We also asked whether an artist's feelings would affect how good the picture was. Here 10/12 of the 7 year-olds said that the artist's feelings were indeed relevant;

and that judgment contrasts with their view of the beholder's feelings noted above. Does that indicate that the children were in some way reasoning in a more sophisticated fashion about the artist? Alas, it was noticeable that the children regarded happiness as **directly** transferred to the picture: a happy artist would make a 'happy picture' and a sad artist would make a 'sad picture'. As one would expect, only 1/12 of the 11 year-olds held to such a view: the rest explained that the artist's skill determined picture quality. Again then, an early reasoning-pattern based on absolute qualities to be transferred gave way to appropriate reasoning about intentional relations.

Let us take a closer look at the question of mood and picture. We would say, 'Well, look, you're passing a shop window and it's a picture shop, an art shop, and it's got these pictures in, and one day you're just feeling sad, you look at the window, you see a picture there, and another day you're feeling really happy as you walk past, so you look at the picture. Do you think you would look at it differently?' The 7 year-olds, with only a couple of exceptions, were patient with us: if a picture is interesting, that's what you see, so it doesn't matter how you feel. The relevant facts about beholders are not yet **integrated** into their intentional net. Some of the 11 year-olds had a sophisticated story, a sort of projective theory. Some of them had a less sophisticated theory, and one of them just said, rather endearingly, 'Well, if you were really sad, you wouldn't want to look at pictures, would you. And if you did, you wouldn't appreciate them, would you.' Turning now to the artist, to keep it matched, we asked whether, if an artist is happy or sad, does that affect the picture the artist is going to produce? Now, 7 year-olds, again with just two exceptions, were very clear about that. The answer was yes, of course. If you are happy, you'll make a happy picture, and a happy picture is pretty and good to look at, and that will be better. If you are sad, you might choose all dark colours in producing your picture and it won't be a good picture, will it? Apparently then, feelings do not affect beholders but they certainly affect artists, in a **pictorially-relevant** way. Children are building up theory of a picture as an artefact, in which the power lies in the hand of the artist, but at this age the artist hasn't got the power to override the World, no matter what her relationship is with it. If something is ugly, it will be a bad picture, if the artist is in good shape it will be a good picture, but the ideas are not yet not integrated where they can balance one against the other. Again, the 11 year-olds were very clear. An artist might be feeling really sad but then if she has got a lot of skill she might produce a good picture. And, as one 11 year-old explained, 'I'd rather have a really good artist who was feeling sad, than a rotten artist who was feeling really pleased with herself.'

Next, I should like to focus on a central fact about depiction, using a comment by one 7 year-old child as a stalking horse. We established that a fictitious character 'Sarah doesn't like snakes.' That is a proposition about a person's relation to the real world. We then cast the person in the role of beholder by asking, 'Could you have a picture of a snake that would make Sarah like snakes?' That question seemed to polarise 7 year-olds, whereby eight children said that it was possible for a picture to alter a relation to the real world in such a case, and seven children said

that it was impossible. What is of interest is the remaining child who said, 'Not exactly, because that's only a picture, that's someone's mind being put on paper.' What is important is that the child has got what Wollheim (1993) said, correctly, was a central fact about pictures. In Wollheim's formulation, 'The central fact about art is that it is an intentional manifestation of mind.' This 7 year-old, in thinking about snakes, had seized a corner of that central fact: a picture is someone's mind being put on paper. It will now take the child some years to get her inferential apparatus working so that she will come out with really better conclusions. All that I am suggesting in this talk, is that it is not too difficult to make sense of the journey the child is going on once we start to use the intentional net as a map. The child will go round and round the net, progressively integrating judgments on the relations within the net.

To conclude, the present approach is based on a thought experiment whereby one regards a picture as initially devoid of all properties but with the potential to acquire properties. One then asks children whence a property could come if a picture is actually to acquire that property. If we knew what properties to enquire into, we could build up an account of how children gradually enrich their aesthetic judgments by drawing finer distinctions between properties and distinguishing between the artist, beholder, and world as sources of these properties. At some point one would expect children to be able to segregate judgments, to be able to say that a picture can simultaneously be ugly yet be a good picture, or that the topic in the world may be ugly (e.g. War) yet *Guernica* is not a bad picture. Such reasoning is what makes folk aesthetics possible. Accordingly we can categorise what we are after as exposure of conceptual change within the child's theory of pictures. Early pictorial reasoning is what makes it possible for people to develop art criticism; the aim is to study the emergence of art criticism in the child.

The price to be paid for a method of research that detaches the child from first-hand involvement is a degree of pallidness. It is a price that scientists are accustomed to pay. The study of the child's theory of biology says nothing about how children will interact with pets and pests, but does inform us about how children categorise the animal kingdom. The study of critical pictorial reasoning has just the same status, affording insight into what pictorial inferences and causal arguments children of different ages regard as legitimate. Once that is known, children can be engaged in more informed debate about pictures.

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Norman H. Freeman

Norman H. Freeman, Head Department of Psychology, University of Bristol. Date of birth: 18 February 1943.

Nationality: British.

Academic career: 1966 Cambridge BA (First Class) Natural History Tripos / 1969 Cambridge: PhD in Psychology of learning / 1969-1972 Research Fellow, University of Durham / 1972 (cont.) University of Bristol / 1993 Head of Psychology Department, currently Reader in Psychology / 1987 elected FBPsS.

Research interests: Cognitive Development and Representational Change.

Visiting appointments: Australia, Canada, Hongkong, Israel, Italy, New Zealand.

Editorial Associate on British J. Psychol. & British J. Dev. Psychol.

Publications: about 50 articles and chapters, one edited book, one monograph.

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10 DENNIE PALMER WOLF AND DANA BALICK

They Make Me Play Better than I Do: New Approaches to Evaluating Arts Education Programmes

INTRODUCTION: WHERE IS ARTISTIC LEARNING?

Here are several fragments about the practice of making art which have much to teach us. The first is a pair including the dictionary's definition of the word quilt and a description of a nineteenth century mariner's compass quilt from a recent issue of the magazine *Folk Art*:

'quilt: 1) an article of bed furniture, consisting essentially of two large pieces of woven material having a layer or wool, flock, down or the like placed between them; orig. used for lying on; now, a coverlet of similar make, esp. one in which the lining is kept in place by lines of stitching passing through the whole; hence, any thick outer bed covering; a counterpane. (*The Shorter Oxford English Dictionary*, 1965).'

'The quilting is amazingly fine and even. Diamond shapes are quilted in between each point, and concentric circles surround each compass. Single small quilted circles offset the appliquéd design. As Atkins and Tepper said in their book, *New York Beauties*, in which Barker's quilt was featured, "This is probably the finest Mariner's Compass quilt see ... each thin radiating spike comes to a perfect point, and the stitches throughout are tiny and exquisitely placed." (*Ash*, 1994, p. 46-47).'

The second comes from the acknowledgments page of E. Annie Proulx's 1993 prize-winning novel, *The Shipping News*. It reads, in part:

'Help came in many directions in the writing of *The Shipping News* ... Canadian Coast Guard Search and Rescue Personnel, the staff of the Northern Pen in St. Anthony, fishermen and loggers, the Atmospheric Environment Service of Environment Canada all told me how things worked... Walter Punch of the Massachusetts Horticultural Society Library confirmed some obscure horticultural references.' (Proulx, 1993)

The third is taken from Michael Baxandall's remarkable account of the unknown sides of Renaissance paintings:

'In 1408 Gherardo Starnina contracted to paint in S. Stefano at Empoli frescoes, now lost, of the Life of the Virgin. The contract is meticulous about blue: the ultramarine used for Mary is to be of the quality of two florins to the ounce, while for the rest of the picture ultramarine at one florin to the ounce will do. Importance

is registered with a violet tinge.' (Baxandall, 1972, p. 11)
Each one of these should be very upsetting - each runs counter to some of our most tightly-held folk theories about artistry. The quilting examples are unnerving because they point out how the 'same' object, a quilt, can migrate from counterpane to art. Perhaps textiles, songs or paintings are not beautiful because of their inherent balance, harmony, or imagery, but become (and cease to be) handsome or moving, given the eye and ear of the beholder. The example nags at us to understand how we construct, rather than directly perceive, what is imaginative or lovely. It even raises the specter that we elect who is an artist: at one time excluding quilters, now welcoming them in.
Proulx is equally upsetting in her way. Given our notion that artists are fundamentally soloists, independently breaking new ground, we can easily jump to imagining Annie Proulx alone in her Vermont attic, keying in her visions of storms and thrashing seaweed on the desolate Newfoundland shores. But, right away, in the acknowledgements, she announces the absolute opposite: she makes it quite clear that her work is gregarious. In the end, she chose the words, but her novel was made in lively conversation with a pack of men on Coast Guard cutters, loggers, and horticulturists.

And we might like to imagine Starnina on his own in his studio at twilight, deciding that the cost be damned, he would risk his own florins for the glory of painting the Virgin's draperies in a blue so intense it could pierce the heart. But, as Baxandall points out, what we take as the details of individual creativity (i.e., Starnina pondering which ultramarine would create the most harmonious surface) was, in fact, a matter of a social contract, under the control of the buyer, not the painter. Renaissance patrons paid only partly for the 'brush', they also sought an object of thus and so a size, which advertised a certain amount of devotion or disposable income as measured in aquamarine, madder and gold. As the painter, Starnina was only one of many equivalent nodes in an extensive social network which included patrons, Church fathers, suppliers, and a larger cinquecento culture whose members understood the equations between blue and the Virgin, or the religious significance of a figure and the florins lavished on its portrayal. His brush would have been still if it had not been for a vast social network of practices.

Different as they are, the anonymous quilters, Starnina and Proulx all remind us that artistry is only partly about individual authorship; it is also profoundly communal. Imagination is socially constructed; invention is gregarious; and creation or performance take their place in an entire network of social practices that either honor or suppress investment in words that are more than messages; images that are more than signals; music that is more than background accompaniment, or houses and chairs that are designed, not just built. The point is that artistry is not simply the result of the flowering of genius. Talent flourishes where it is defined to be, in the company of interested others, and where supportive beliefs and practices foster it.

To make this argument is not just a matter of tinkering with the sociology or history

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of art. If we entertain these notions seriously, they have numerous and large implications for how we think about both the education of young artists and the creation of a public that understands and values the arts rather than ignores or suspects them. For instance, when presenters, cultural institutions, researchers, foundations or governments ask, 'What kind of training or which forms of arts education should we invest in?' we answer largely, if not solely, in terms of the final effects on individual performance (or their aggregates, as in treatment and control groups). We report, for instance, how the participants' drawing abilities, their understanding of opera, or their attitudes towards contemporary visual art, changed as a result of the course or the programme. While there is no question that we want to effect individuals in precisely such ways, focusing exclusively on just those interior and individual results ignores much of what the quilters, Proulx, and Starnina have to teach us. If we take the quilters seriously, we should *also* be looking at where and in whom programmes seek and nurture imagination. If we follow up on Proulx's point, then programmes should also be changing the interactions between individuals, promoting exchanges of ideas and discussions of quality. And finally, if Starnina still speaks to us almost six centuries later, we ought to ask which programmes create an arts community with a dense network of events and practices that will support painters, dancers, and instrumentalists.

A critic could easily raise questions. His first might well be, 'But the arts are about rare talents and unusually high achievement. Changing definitions of imagination, where artists get their ideas, networks of social practices mean nothing unless there are results. And unless those results are remarkable. Without a Mozart or a Manet there is nothing to support.' A second question could be, 'These examples are taken from the adult world where art markets, aesthetics, and social attitudes towards the arts have real consequences. That is all irrelevant to students.' But maybe not. An initial example may help. Here a high school student discusses the consequences of a printmaking class by describing a trip she took to a regional print show with a friend who was a photographer:
'We had something in common, both of us working all the time in black and white. There were lots of colored prints there that other people liked - the biggest crowds were in front of them, ohhing and ahhing. They seemed too garish to us. We went off by ourselves to look at just the black and whites. We talked about how you can get a feel for the color of thing or how cold or warm things are just working with black and white.' (Wolf, 1988, p. 149)

If, in evaluating the success of this printmaking class, we examined changes in this student's graphic skills or knowledge of printmaking, we would find significant changes. But, by stopping there, we miss much about what happened as a result of the course. The student did not come to class with remarkable rendering skills. Instead, her strongest inclinations lay in the area of narrative and metaphor. By recognizing that as a form of imagination, despite the initial jerkiness and uncertainty of her drawings, her teacher enabled her to enter the company of those seen as artistic. From there she could work on questions of modeling:
'I was reading a Greek play where the heroine, Deinira, becomes caught up in one

tragedy after another - she gives her husband a shirt to insure his love, but it burns him so that he throws himself onto a funeral pyre. She hangs herself in horror and grief. There's this idea of evil under everything, I got this idea of tangliness out of it. When evil touches one part, it's everywhere. From that I began working on an image of a mythological creature with her hair tangled in the sun.' (Wolf, 1988, p. 150).

In the studio, the teacher also created a gregarious community: everyone's work - from Munch to other students - was a lesson book. As the student says: 'When Russ (her teacher) goes around the studio, I listen to what he has to say to other people who are working there and then look at my print to see whether I would have given the same critique to my own work.' (Wolf, 1988)
In the context of insisting on the gregarious nature of artistic work, the student realized how interesting it would be to go with a fellow worker in black and white. Together, they went looking for their adult colleagues whose work in the austere aesthetic of black and white could teach them something about their own obligations and possibilities. In addition, the teacher had effectively created a miniature art community. He insisted that students become a part of the network of events and practices that support and extend artistry, such as assigning them the trip to museum and a critique of what they saw there. In this setting, the student had to be a printmaker, a museum goer, a colleague, and a critic. She had to join or depart from the crowd, debate which works deserved the prizes and which were overrated, and return to the studio to look at her own work in light of the show.

In what follows, we describe a much extended vision of what should be evaluated in programmes of arts education. The fundamental proposal is that we have to look not only at changes in the achievements of individuals, but also at the extent to which the programmes under consideration 1) develop constructive and inclusive definitions of imagination, without sacrificing attention to quality; 2) create gregarious arts communities that support discussions of high-quality work, 3) create communities which demonstrate to students how the arts become vital, constructive forces for accomplishing worthwhile work. We begin by pointing out how this revised view of arts education is rooted in broader reconceptualizations of learning. Then we illustrate this widened range of effects in arts education using examples from contemporary programmes where these additional effects are visible. In concluding, we turn to two additional points: 1) the lessons such evaluations carry for the design of arts education programmes; and 2) the lessons this work has for education more generally.

A NEW CONTEXT FOR THINKING ABOUT ARTS EDUCATION

The need to rethink how we approach the evaluation of arts education has numerous sources. Three emerging understandings are particularly important:
1 the growing understanding that the definitions of thoughtfulness and imagination are socially constructed and as such, can be viewed as rare, innate and fixed or broadly available and learnable;
2 the realization that much complex thought, even acts of what appear to be

original, solitary creation, are fundamentally joint endeavors; and
3 that creativity or artistry requires a supportive network of social practices in order to flourish.

Many apparently simple acts - substituting ingredients in a recipe or figuring out a route around downtown construction - require inferred rules or mental models, the generation of multiple possibilities, and the evaluation of choices along multiple dimensions. These are not activities unique to scientific experiment, logic, and moral reasoning - they are simply highly developed in those settings. Similarly, if many individuals have the capacity to tell stories, make up simple tunes, sketch and make maps - then at least basic acts of imagination are plentiful, rather than rare. Finally, based on research (Brown, 1988; Freuerstein & Rand, 1974; Vygotsky, 1978), as well as cross-cultural observations of achievement (Stevenson & Stigler, 1992), we have also come to understand that the kinds of motivation and reflection that inform the drive for quality performances can be acquired. The implication for arts education (and its evaluation) is considerable.
In the previously dominant romantic and Freudian view, artistic achievement was a matter of sheer inspiration, talent or drive. It was a matter of unique perceptions, personal vision, and raw creativity, which could be uncovered, nurtured and polished, but never instilled. While there remains no question that there are individuals with distinctive gifts (e.g. perfect pitch, extraordinary visual memory, unusual flexibility), in a framework deeply informed by cognitive psychology, understanding and participation in the arts no longer needs to be reserved to a tiny, highly-selected, and fixed minion. If we take the quilters (or the composers of field songs) seriously, possibly many individuals can learn to make visually arresting objects or to hear and use the musical materials to express longing and hope. Perhaps we make a serious mistake by letting large numbers of students drift by the arts in quick survey, 'appreciation' courses. This position is confirmed wherever we have research on artistic learning or the consequences of instruction in the arts for a broad population. If students have the chance to participate early in acts of creation and interpretation (e.g., making paintings, performing music), if schools require courses in the arts with exams and later opportunities available, and if arts education is sustained (e.g., a year's worth of visits to a museum with opportunities to explore, converse, etcetera) we can realize measurable and lasting artistic learning in a broad population of students (Cf. Ganzeboom, Hermans and Steers essays in this volume.)

The second major shift has occurred largely as our insular tradition of Euro-American psychology has opened up to two quite different ways of conceptualizing thought and achievement. Both of these approaches underscore the profoundly social nature of learning and achievement. The first of these frameworks derives from our growing respect for cultures where sustained apprenticeships in long-standing traditions, rather than personal innovation, is central (e.g., Hawaiian traditions of village negotiation; Jewish cantorial music; or Asian brush-painting). For instance, in the tradition of woodblock printing, even as talented an artist as Hokusai, argued that his first eighty years were for mastering the craft laid down by

his predecessors, and that innovation was a luxury of his nineties. This is a view of art as full of imitation, borrowing and reverence, rather than personal style and iconoclasm. Similarly, although from a dramatically different vantage point, Russian and Marxist writers like Bakhtin (1986) and Vygotsky (1978) have helped us toward a more a 'dialoguic' model of thought, by arguing that even the most novel inventions demands jointly invented and collaboratively used tools. Those tools include the obvious pens and paper, language with its agreed upon grammar and vocabulary, to definitions of literature, creativity, and beauty. Thus, Dostoyevky's prose, unique as it is, acquires its density and force, because he can play on the 'carnival' of meanings that previous readers, writers, and speakers have lent to words. So shared, public and collaborative a vision of thought in general, and artistry in particular, contrasts sharply with the highly individualistic and insular views we have inherited from European, British, and American romantics like Goethe, Byron, and Twain. (Think of the raw, spunky independence of a loner-hero like Huck Finn, building his own raft, going it alone against the grain of conventional thought, scraping by on his improvisational wits, and 'lighting out for the territories' when the conventions of town life crowd in on him in the form of the Widow Watson's washcloth and bible.) Here, too, the implications for arts education are tremendous. In the most literal sense, this view questions the emphatic attention we often give to personal self-expression, particularly in early arts education. It points to the importance of imitation, models, and traditions. In a much wider frame, it suggests that we owe students more articulated sense of how to draw from and contribute to the social world of art making: how to use models, take on traditions, request and use critiques, or share information. Conceivably, it also shifts the image of arts education from one of the atelier or orchestra where any number of individuals engage in their own parallel work to that of the opera company where the complementary work of composers, librettist, designers, and performers combine, in a tightly jigsawed configuration, to make a larger whole.

A third, and final, significant change to acknowledge is the growing (if still incomplete) reconceptualization of the arts as involving the same kind serious work and thought that we have long ascribed to science, logic, or engineering. Characteristically, we have portrayed creation in the arts as a matter of the direct expression of talents or urges and we have described aesthetic understanding as a matter of direct perception. Neither of these portraits suggest that there is much problem solving, choice, or reflection involved. It is all a vision like Coleridge's dream of Kubla Khan. But much as Parsons points out, the view that the beauty or worth is right there 'in' the work is changing. (Cf. Parsons, this volume as compared to Beardsley, 1981).

For instance, Goodman (1968) seated his aesthetics in the artist's handling of the properties of different culturally-constructed symbol systems. Even more recently, philosophers like Danto (1992) have argued that artworks 'work' because of an artist's ability to engage audiences in making novel and rewarding meanings. Simply put, the meaning is not 'in' the work; the work is an occasion for rethinking, making new connections, or confronting another's view. In a number of respects this closes the supposed distance between painting or writing dance criticism and

new forms of physics or computing. Each constantly requires negotiation between maker, user, world, and object. This yields a view of arts education not as a parallel tonic or antidote to schoolwork. Instead, dancing or printmaking become additional occasions in which to research, debate, invent, revise, and critique. As such, the arts are not merely decorative, they are powerful tool for doing work in the world. However, as recent events in the United States (e.g., the Mapplethorpe trial, the hobbling of the National Endowment for the Arts) have illustrated, whether that work can proceed has everything to do with whether the arts are seen as destructive forces to be curtailed and suppressed, or as alerting and constructive forms of production and communication.

EXPECTING IMAGINATION

The first new dimension we would propose examining is whether an arts programme allows large numbers of students, rather than a selected few, to use their minds and imaginations, all the while holding on to questions of quality. This engagement has two faces. First, there is the question of whether, overall, the experiences and activities the particular programme require thought and innovation, rather than strictly rote or imitative learning. Second, there is the question of whether or not the programme allows an inevitably diverse group of students points of entry into learning.

These issues are well illustrated if we look at a programme of arts and humanities learning currently running as a part of a larger school reform project in urban settings throughout the United States. This programme, PACE, has as its major focus the provision of enriched and rigorous learning opportunities to students whose poverty and social marginalization has often cordoned them off from the demanding curriculum provided to mainstream, middle class students. One of the central tenets of this programme is that students must have access to the large ideas and generative strategies that will give them cultural capital, academic and artistic power. In the case of the arts and humanities portion of the project this means insisting that large numbers of students have powerful thoughts and vivid imaginations. It also means insisting that they regard their thoughts and inventions as valuable, refining and polishing them to a high luster.

Much of the work in these projects is organized around ongoing questions or continuously developing projects. The continuing nature of the work means that students, who have often been disbarred from expectations of excellence, have the time to build a command of the ideas and strategies that will yield distinctive work. For example in one middle school American studies class the study of literature, the arts and history are combined so that students have long blocks of time in which to do substantial work. Throughout the year, students supplement the usual univocal textbook narrative of American history by creating a series of publications, *American Voices*, about important moments and ideas in American culture. To write and design the publications, students form working teams that include: researchers, writers, editors, designers and reviewers. For different publications, individual students take on different roles. In order to make it clear how all students are

expected to exercise their imaginations, it makes sense to look at a particular example: students working, under the guidance of a team of teachers, to understand the craft and the ideas carried in the poetry of Langston Hughes.

As mentioned earlier, students take on specific roles rather than all doing the same work in parallel. In part, this is a way of breaking step with the usual model of achievement that dominates classrooms: the normal curve along which all students are ranged so that only a few students figure in the high end and, by definition, half of the class performs at or below average. Breaking the class into smaller working groups each with a distinctive assignment, sends two different messages about imagination and excellence. First, with smaller working groups everyone's work is visible, quality cannot be achieved by the few in the upper end. Second, there is no beautiful, moving or insightful publication, unless all the groups produce high quality distinctive work. Students select their roles based on job descriptions, each carrying very clear expectations of high performance. For example, the job description for researchers calls for keen investigation and command of information:

Being a Researcher

A researcher is a curious and smart detective. As a researcher on this project it is your job to locate important and interesting materials that will help us to understand why Langston Hughes is an important American voice. You will be our experts.

In this job, you will:

Work independently in the library, consulting with the librarian on finding the books and other materials we need.

Build the classroom library and be the guides to those materials.

Help writers to find what they need about Hughes' life, work and ideas.

Read writers' drafts to check on facts and ideas.

Keep us informed in class discussions.

Work with designers and illustrators to find images.

At the same time, students work as an entire class to develop a shared understanding of the American history and politics of the 20s and 30s and the ideas and works of the Harlem Renaissance which form a backdrop to Hughes' work. They read from several history texts, look at video footage, and investigate the feel and reality of that world through primary source documents, among them photographs and other visual images of the time. Even in this basic work, all students are asked to exhibit their historical imaginations developing an informed empathy for the lives of people living at that time. For example, using the techniques of readers' theater and improvisation, students 'walk into' the famous street and studio photographs that Van der Zee took of Harlem scenes, attempting to speak the minds of the figures captured there. Or they walk into the images that William Johnson painted of the city's life. Here, for instance, is an assignment given to all students based on Johnson's jitterbug paintings (see top page 125).

The expectation that wide numbers of students have the historical and theatrical imagination for such work frequently has a high yield. Here, for example, is what two different eighth graders had to say, when they walked into William H.

Entering a Johnson Painting

Take time to notice all you can about the scene and the characters in it.

Try becoming a figure in one of the paintings. Speak out loud as if you were a person living in that time and place. Make use of what you have read and seen so far, and what you can pick up from the picture you "walk into."

As you walk in, think about:

What would I be seeing and hearing in the city around me?

What might I be thinking or imagining?

Johnson's paintings *Jitterbugs III* and *Street Life - Harlem 1939* both of which show couples dressed 'to the nines' out on city sidewalks:

One Student speaking for the woman in "Jitterbugs III"

"Whooee, little big man,
We're sweeping up this city floor some sweet
Gonna dance on down, down this street
Knee deep in the music's heat
If we keep on this boogie woogie beat
Gonna move on through that deep dark street
Right on up to the boogie woogie sky
Little big man
Take me way down through
to the city's nighttime side."

A Second Student Speaking for the Man in "Street Life"

Let's move on down those summertime Harlem streets.
Parade right down the city avenue
It's a honking. Loud. Big place.
We've got our Sunday looks on.
Let's find the music.

Teachers have worked hard to find a number of inventive 'ways in' to help even the less experienced students read closely and think about the ideas behind the poems. Here is one example based on Hughes' poem, *The Negro*.

As you read Hughes' poem, The Negro, make notes or mark on your copy of the poem to create a diagram or a picture of what you notice. You can use lines, arrows, colors - whatever works. One reader who tried this out called it "making an x ray to show where the bones are in the poem."

The Negro

I am a Negro:
Black as the night is black,
Black like the depths of my Africa.

I've been a slave:
Caesar told me to keep his door steps clean.
I brushed the boots of Washington.

I've been a worker:
Under my hand the pyramids arose.
I made mortar for the Woolworth Building.

I've been a singer:
All the way from Africa to Georgia
I carried my sorrow songs.
I made ragtime.

I've been a victim:
The Belgians cut off my hands in the Congo.
They lynch me now in Texas.

I am a Negro:
Black as the night is black,
Black like the depths of my Africa.

As suggested earlier, another critical ingredient in these classrooms is that students are all expected to think about what makes for compelling and interesting work.

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Thus, before students add their verses in, they discuss what to pay attention to in adding their verses. Here is a list they generated:

To add a verse, think about:

Where it belongs in the pattern of the whole poem (beginning, middle, end)

Does it get the history right

How it will match with the words and mood in other verses (sad, hopeful)

What will make it belong to the point of the poem

Such a public conversation about quality carries the important message that there are high expectations for everyone's work.
It is equally true that in these classrooms there is the understanding that fine imaginative work is rarely a first draft affair. An initial try often carries the outlines of a fine impulse. But the realization of that first outline often demands rapt attention to the fine details of tense, word choice, and the creation of a tight, consistent image. That requires drafts, pauses, reflection, and new attempts:

A Sample of Student Work: Draft 1

I've been a singer:
All the way from Africa to Georgia
I carried my sorrow songs
I made ragtime.

I've been a victim:
The Belgians cut off my hands in the Congo.
They lynch me now in Texas.

I've been a writer:
I have signed my name to vote
My children have schools
I will set down our lives in the shape of poems.

I am a Negro:
Black as the night is black.
Black like the depths of my Africa.

A Sample of Student Work: Draft 2

I've been a singer:
All the way from Africa to Georgia
I carried my sorrow songs.
I made ragtime.

I've been a victim:
The Belgians cut off my hands in the Congo.
They lynch me now in Texas.

I am becoming a writer
I have signed my name to vote
I have sent letters flying, like birds, from jails
I will set down our lives in the shape of poems.

I am a Negro:
Black as the night is black.
Black like the depths of my Africa.

Even as students do this joint work, they also carry out their specific assignments as researchers, writers, and designers. While the researchers search out and select what they see as the important documents and comments on Hughes' life and work, the illustrators and designers collaborate on the visual presentation of this information. For example, with the help of the visual art teacher, the illustrators examine African textiles and their translation into patchwork quilts. They return to Van der Zee's photographs and Johnson's paintings. They also look at the dramatic black and white silhouette work of Aaron Douglass, an African-American graphic designer and illustrator, developed throughout the 20s and the 30s. Equally

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important, these students collaborate with the editors to see what poems and writings will be featured. They read early drafts of the introduction being prepared by researchers and writers to see what points the writers will make about Hughes as an important American voice. Then both illustrators and designers have to prepare a presentation to be made to the entire working group. This presentation has to include several different proposals for illustrations or lay-out and type. Students have to be prepared to explain which approach they favour and why they believe that approach will help to bring out the meaning and import of Hughes' poems. Once the whole is assembled, it is reviewed by outside readers: other American history teachers, adult writers, visual artists and teachers working at the school. These reviews are shared in a whole class meeting and final revisions are made. Finally, the publication goes into production, there is a publishing party with dramatic readings, and the publication becomes part of the library of student work used by upcoming American studies classes. As in earlier portions of work, these last events of reviewing and publication are designed to insist - both with students and with teachers - that thought and imagination are not rare commodities. Instead, they have to be expected and taught, rather than hoarded for the few.

A GREGARIOUS WORLD

If Proulx needs the company of others, so do students deserve a gregarious world peopled by immediate and live colleagues and a chorus of others who embody traditions and lives that they can draw on. The immediate presence of others is well demonstrated in contemporary programmes which are built around a model of authentic artistic enterprise, rather than an atelier of exercises for separate individuals. One outstanding example of this is the Metropolitan Opera's programme *Creating Original Opera*, in which a classroom becomes reorganized as an opera company in order to create and produce an original musical work. Just as in the earlier example of *American Voices*, students take on different roles: this time they choose to become composers, performers, set designers, stage managers, or even publicists. In that setting, solo problem solving is virtually impossible. Making progress toward a final production inevitably involves work with other writers, designers, or composers. For instance, here a group of 9 year-old set designers and their classroom teacher struggle with how to create an effective set, given the limits imposed by using the common auditorium space in their school.

TRANSCRIPTION OF A CONVERSATION BETWEEN A TEACHER AND HER TEAM OF SET DESIGNERS

Teacher: So let me restate the problem for you. All right, the fact is that we are going to have two drops.

Kid 1: The library.

T: The library, and the other one is...? The what?

Kid 2: The playground.

T: The playground.

T: Now, they are going to be happening in the same space on stage. Now, we don't have a high place to hang these things from. So Mr. Hane (the custodian) said that if we could think of a good way to make them hang from these kinds of walls we

could do that. But I don't know how to do that. I need some of your thoughts. What would be a good way to use those sheets that are painted on the drop on the wall. What could we do? Anna?

A: Well, you know how you have those maps up on the wall there? (She points.) If we could just find something to sort of hang it from, and then pull it down each time and then when you're finished you can just pull it down and...

T: You mean like a shade?

A: Yeah.

T: OK, let's think about that. That wall is a folding wall, they open and close frequently...

A: So it might have to be a little forward...

T: ...The whole idea of something that pulls down and goes back up is a neat idea but the idea of putting something strong across the wall might not work. Does anyone else have another idea of what we could do? Wendell?

W: We could take like a long strip of wire or something like that and get a piece of paper, and get a big roll and, like a garbage can kind of thing, but bigger, and we could staple the design on it, and keep rolling it when we want a different design on it. Like if you want a different set design..and then if you don't want the people to see what you're doing you just close the curtain and...

T: Do we have curtains?

W: No, but I mean, you could just turn the lights out or something.

T: Oh, blackout... go to black.

W: Yeah.

T: OK. Now I want you to think about something that Anna said. I want you to look at the map rack up front. I have two maps right? So let's go back to Anna's and Wendell's ideas, because I think if we put them both together we would have it made. All right. Wendell, you talked about wire or staples. Think about it. If we were to go to Mr. Hane and say, could we use a staple gun...

W: No, no, you don't understand.

T: Go ahead.

W: Uhh, I need to draw it to show you.

T: Go ahead, get a piece of paper and pencil. Patrick go ahead, help him out. (Wendell returns with paper.)

T: OK, show me what you are talking about.

W: OK, this is the auditorium. Here's like the door, it's like... (He draws.) You just take a big piece of [wood], put it from side to side, staple a big piece of paper to... and then for each set you just roll it, because there's going to be a thing that you could roll.

T: OK, here's our problem.

W: You can't reach it?

T: No, our problem is that we can't put the wood across there. I'm telling you we can't.

W: We could put one piece of wood across like this (holds up two pieces of paper to show that he is talking about two vertical supports, one on left, one on right with a cross-bar which acts as a roller from which the drops might hang.)

T: Are you building something that stands away from the wall?

W: Yeah.
T: Let me show you what I think Wendell is saying. Wendell, could I use this piece of paper too? Now we are going to build two pieces of wood. And across that wood... we are going to have a roller. And this is our thing that hangs down.
W: So you could put the pictures, so you could roll... so you could keep rolling it.
T: This is a very good solution. You all have such wonderful ideas, so good.
W (drawing): See, you can't stretch a whole piece across it, so you put the pictures on there. Right that's your drop, right? That's your library or your playground. (He sketches to show how the backdrop from the roller provides the background.) It could be anything... what I'm trying to say is... this is a separate piece of the library and the wall... so the audience could see, you could just put pictures on here, like you could make it books or something... (He is describing how flats on the left and right could complete the picture.)
T: You could make it look like books? What happens when we're on the playground and there are books on the side?
W: You could paint it like, light blue or something, so it looks, in the library, it looks like a wall, but outside it just looks like, like a outside, daylight.
T (shakes Wendell's hand): Do you notice what he just did? I told him what the problem sounded like so all of a sudden, he could immediately change this from being just solid blue, so that it could be outside, or it could be the walls of something so that it's not distracting to the audience.' (Wolf & Balick, 1994)

But it is not just in-group conversations like this one between designers that matter. Here a group of 9 year-old composers explains how they argued their way towards - and then defended - their conception for a major ensemble piece in an opera about children trapped overnight in a natural history museum.
'See, see, we knew that we wanted to have a song, you know, where the dinosaurs come to life and warn the kids that they better not fight or they will become extinct just like they did. And so we made up this tune, and we were fooling around with it on the keyboard. And Marcus keeps switching like the background beat - you know, like disco or Latin, or Caribbean - and we were getting angry with him. Then he won't quit and he makes into this, like this rap, and going "Hs- shahs - shh shh." And it was good. So we like started to snap and slide around. And then we took it to the writers who said, "No, no rap, no way." And then we got back at them and said that it made the dinosaurs seem cool, like they knew what was up, so the kids should listen to them.'
This constant work with others appears often to have lasting consequences. This is evident in what a middle school performer has to say about the mutual responsibilities among performers:
'When you act you are part of a company of people putting on the opera. Say like someone forgets their line, and you notice it. Then it is up to you not to make a face or whisper or anything. You just have to think fast and make up a new line that your character might say. And that gets the same information said out loud. So imagine that Takisha is supposed to say that she knows the boys are coming, but she forgets her line. Then I have to say, "I think I hear the boys coming," or maybe something like, "We better get going, because this is when the boys usually come

to the park." And she should be doing the same thing for me. That's why sometimes when we rehearse you see her or me saying each other's lines.'

Another test of the success of this aspect of arts education is whether or not students can extend this mutuality to students with whom they are not working directly and on work with which they are not intimately familiar. Here, for example, is what that looks like when it is achieved. This is a student writing comments to the members of another opera company on their performance of an early crossover scene between a mother, a son and a daughter where the two siblings are at the kitchen table teasing one another when their mother arrives, her arms full of groceries, and announces that the family reunion will be at their house. The three join in a trio about 'so much work to do'.

'Here are some notes for your next performance. I think your biggest job is to make the scene more interesting, even if it is just a short introduction to the rest of the opera. Like make the mom more tired. When the daughter takes the groceries she shouldn't do it with just one hand. And make the teasing funnier. Like when the boy wants the peanut butter from Christy, Christy could say, "You get it yourself. I'm not your maid."

'In your song maybe you would want one person singing at a time because you can hardly hear them as it is. Or you have to be careful that they sing very clearly if you want to have them singing together. Or they could do it in turns. In the kitchen, there isn't much stuff in it. It doesn't mean that you have to bring in furniture because that might make it too crowded for performers. But you draw a sink, drapes in the windows, carpet, and a lamp so it won't be so dark.'

A second programme, *Arts Propel*, makes an additional point about the kinds of company that arts education programmes can construct. It is a multi-year initiative in curriculum and assessment in the arts that originated in the Pittsburgh Public Schools, as a collaboration between arts teachers, researchers from Educational Testing Service and Project Zero at Harvard Graduate School of Education. The central aim of the programme was to rethink visual arts, musical, and literature education in the mode of authentic practice rather than what Arthur Efland once so aptly termed 'school art'. Central to that project was an effort to provide students with the sense that they are members of a long-running conversation about art work - that in becoming painters, musicians or dancers they are joining a 'gregarious tradition'. (Askin, quoted in Wolf & Pistone, 1991)

As a part of developing portfolios of their work, students kept journals in which they reflected on their changing identity as artists. One of the common types of assignments was to ask students to visit exhibitions and attend performances in order to discover others - living and dead - who were interested in and working on the same problems that occupy them. Thus, after investigating a family photo album, one visual art student became absorbed by the challenge of representing the intimacy and bonds in families. One of her teachers offered her a catalogue of work by other African-American artists who had taken up that same challenge. She explains the effect in talking with another of her teacher.

'Student: The artists in there, they tried to capture the fact of the family. They tried

to show the black family, and basically did their drawings in a way that people could see the closeness, the family togetherness. And I like that because I am close to my family. Here is one. See, it's a man holding his son, I take it. It's called *Christmas*, by Palmer Hayden, he was one of the (Harlem) Renaissance artists. See, the man is holding the baby just the way my mother's holding me, and my grandmother's holding me (in a series of pastel drawings she had recently completed). You see those same kinds of things in my pictures.
Teacher: Were you astonished to find that other people had used the same ideas?
Student: Yes.
Teacher: Did that have an effect on you? Did it make you appreciate what you were doing more, even more?
Student: Because someone thought of it? It really makes me feel extra special to know that an artist, like maybe over half a century ago, had the same feelings I have now, here. Sort of a connection there, I guess.' (Wolf & Pistone, 1991, p. 44)

To continue this kind of conversation with others, the teacher sent the student to the museum. As she worked on later drawings in her family series, the student radically simplified her approach, searching for ways that her family could become less specific and more universal. On one of her visits, she encountered Giacometti's sculpture, *Walking Man*, in a way that gave her work new direction. Her journal notes make this clear.
'In *Walking Man*, the figure of the man appeared to be held back as his back foot tried to advance forward. ... And he's leaning forward, he's trying to get away but something is holding him back. I think the fact that Giacometti didn't put in any features, that is, in the face, could mean that it is anybody who is trying to get away from something, trying to advance forward in life. But something's holding him back.' (Wolf & Pistone, 1991, p. 48)

Partly in response to this figure the student began sketching and modeling attenuated, featureless figures of her own, many of them, almost in answer to Giacometti, centering on an adult figure lifting a child figure hopefully high into the air. She explains:
'I tried to show the fact that he is holding up the child. Lots of times you see parents walking with their children, down by their side; they're taking the children by their side, and it's sort of like pulling the child into life. You're taking the child everywhere you want to take the child. Here I think the figure is lifting the child, saying, "Hey, I'm trying to get you up in life. I'm trying to make you be better than I was." So I think it has a lifting-up quality.' (Wolf & Pistone, 1991, p. 51)

We could - and perhaps should - credit *Creating Original Opera* with changing 9 year-olds' understanding of the handshake between lyrics and music or cite *Arts Propel* training as a major factor in increasing students' range of imagery. But to do so only catches only a part of what such programmes accomplish. It leaves unnoticed and undocumented the creation of a network of productive interactions about investing in and pursuing the making of art. This is a loss: such programmes create a social matrix of relationships and exchanges which are likely to fuel an

interest in music and imagery long after the last class is held.

TURNING OUTWARDS

As artists, anonymous quilters, Starnina and Proulx depend on the establishment and maintenance of communities which value their work, whether that interest takes the form of people saving scraps, commissions and elegant materials, or interviews and paperback editions. Arts education programmes are no different. A key dimension of their effectiveness is the extent to which they can knit the artistry they promote in students into the larger fabric of public life, creating interest and demand, resources, and belief.

In Fort Worth, Texas, teachers have formed an alternative school, the Applied Learning Academy, where much of the teaching and learning focuses on providing students with an opportunity to test their learning in the crucible of real-world applications. As a part of their work in history students became interested in the problem of how historical museums - usually packed and arid - might become more engaging by taking a page from the practices of hands-on science museums.

A sixth grade classroom approached the director of a small museum in their community, the Cattleman's Museum, proposing to pilot a junior docents programme, where students would study exhibits and design ways to extend and enliven them for visitors of all ages. As a first step they wrote a proposal to revamp a boring and overstuffed exhibition about Texas ranching which, in turn, they had to present to the museum board who made the final decision. This is what they prepared:

A JUNIOR DOCENTS PROJECT

Modifying the Tour for Younger Audience

INTRODUCTION

The junior docents who have been hired for your museum request to install an educational skit which brings the museum to life. This will complement your interesting exhibits and get younger audiences involved.

TARGET AUDIENCE

The target audience for our presentation is children in grades 1-5. The reason we do not wish to do any group younger than first grade is because we think they will not be able to make the complex connections needed to comprehend our guided tour/play. We plan to practice with a group of third grade students from Alice Carson Applied Learning Center. The date we have set up for that rehearsal tour is January 4, 1994.

PLANS FOR CHANGE

We propose to weave a skit or play into our tour of the museum. The skit revolves around a rustler, his exploits, and his capture. Melissa goes first and is Kerry, a regular farm girl. She begins her performance as part of the diorama and moves the children to the movie theater. After the movie, Jarreau, a bad rustler, introduces himself to the children and talks to them about his exploits. (Jarreau's character is talked about briefly in the film. The rustler, Jarreau, must leave quickly because he spots the brand inspectors coming.) The inspectors (Chad and Blake) tell a bit about their jobs and also about the manhunt for Jarreau's rustler character. (There follows a very detailed account of the episodes that take place to explain each of the different exhibits.)

This presentation makes the whole museum interactive.

RESOURCES

We will need to use primary source materials from Memorial Hall and the museum's library as well as the computer software on cattle and the Texas Rangers or brand inspectors. We will provide our own costumes (with help from parents, friends, and teachers.) We are planning to ask Justin Boots to help us with authentic boots.

CONCLUSION

Our group is very impressed with your exhibits as they are now and hope we can add to them! Thank you for allowing us to plan our tour and be creative. (Shambaugh, 1995)

In the subsequent weeks, students used much of what they knew about theater, museums, literature and Texas history to create scripts in which live docents, costumed as ranch characters wove together fact and fiction. They worked with a drama coach to develop their acting abilities. They located costumes and designed a brochure about the project to present to visitors at the end of each tour. As junior docents for the Cattleman's Museum, the students each performed an original first person narrative. Each student's performance included both informative and imaginative strands. For example, here is one student's lively introduction to the exhibit on branding:

Script for Joe Turner (An introduction to the brand room)
by Tiffany Turner

Hello there, my name is Josephine. They call me Joe for short. You know my great great grandfather Turner owned a large ranch. Can you guess how large? (Reply) Pretty big, almost all of south Texas. Yup, his ranch was perfect. He and his family hadn't a care in the world, until the rustling started. Most of his friends had at least one or two cows stolen. One of his friends had over 40 cows stolen. it put him clean out of business. Then one morning Turner got out of bed and wert on the front porch. Can you guess what he saw? He saw something that he sure didn't want to see. As he looked off into the sunrise he noticed the cows were gone. Every last one of 'em! He knew there was trouble cause the cows had not been branded. Since the cows weren't branded he had no way of finding 'em.

You know most ranchers spend their whole life buying, selling, and raising cattle, and that is just what Turner had done. The main reason people started cattle rustlin' was for quick cash. Turner had never bothered to get a brand registered, which was very foolish.

He decided to go down to the county court house and registered his brand, the Running W. Can you guess which one is the Running W? The county clerk wrote it down in the Brand Book. The next step was where on the cow should he put his brand? Where would you put your brand? (Reply) That where Turner put his? This was also registered in the Brand Book. You know that branding is like putting your name down on a piece'of paper. For years man has marked his property. Branding actually came from Mexico. Why men brand horses, saddles, and even guns. You know the same ranchers can have the same brand, but it has to be placed in another location of the cow's hide.

If Turner had had his cattle branded the Branding Inspector could probably have found 'em, cause he would check other ranches and at local auctions. Do you know what a Brand inspector does? (Reply)

Well, Turner did buy some more cattle but this time he branded 'em.

I've learned from my great great grandfather Turner that when you start a ranch you first purchase you cattle, second and most important, GET 'EM BRANDED, so that if your cattle are rustled the Brand Inspector can go on an investigation and find 'em. Then you get your cattle back, the cattle rustler gets put in jail, and everyone is happy, except the cattle rustler.

History has taught me well, cause I'm startin' my own ranch and you can be sure I'm going to brand'

Thanks for lending an ear, and by the way if you see a fellow with dark skin, glasses and about 5 feet tall, it's been reported that he's been rustlin' cattle in these parts. (Turner, as quoted in Shambaugh, 1995)

Students toured over twenty groups of elementary students, senior citizens, and international visitors. Following each performance, the team introduced themselves to their audience and presented each person with a brochure that described their school, the process students used to develop their presentation, and short biographies about each docent/actor. Following this initial phase, the Cattleman's Museum staff acted as an evaluation team for the docent project, using clearly

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defined standards that were negotiated between students, teachers and the museum staff. In the course of the project, students' mastery of Texas history, proposal writing, and theater techniques changed. But again, if an evaluation went no further than measuring those changes, it would have skipped over the fact that arts education conceived in this way creates a network of practices that make students' artistry and the importance of artistic learning visible, applicable, and appreciated in a larger community. Specifically, the performances of these student-docents have reached the museum staff as well as the many younger students they toured. Their work has created a livelier and more approachable exhibit, which in turn, has prompted the museum to think seriously about extending the involvement of students in the design and testing of their exhibits. A public broadcasting network carried a story about the students' work, allowing a much larger audience to think about the possibility of students as designers and docents, not merely part of the queue in the museum filing dutifully past precious objects.'

CONCLUSION

In an overheard conversation, a chamber music player reflected on having recently played with a sterling string quartet, 'They make me play better than I do.' This is not a moment of self-contradiction, instead it is a remark about the ensemble nature of much artistic achievement. As often as artists and performers acknowledge the social dimensions of their work, it runs wildly counter to the innately talented, solitary and iconoclastic view of creative work that continues to dominate our institutions and practices. It is a view that produces our fondness for giving grants and prizes to individuals, our inclination to write the history of the arts in chapters each about a great solo player, and our penchant for judging whether programmes designed to teach coming generations solely by what happens for individual participants. But as our views both of artistry and of human thinking shift, we require a much expanded set of criteria for making those judgments. Those enlarged criteria should never ignore whether programmes affect skill and understanding in individual students. At the same time, it is equally important to ask about the more social and communal effects of our investments. Does a programme extend the invitation to imagine and create to a broad spectrum of students, even as it requires fine work and skilled performances? To what extent does a programme positively alter the interactions among its participants. - Do they use their disposable time and resources to go to the museum and talk about what they saw on the ride home? Can the programme forge links between the interior community of artists and art students and the larger public so that curiosity, support, and endorsement ensue? We would argue that only once we include these dimensions in our evaluations, do we have tools to take the full measure of what arts education programmes achieve or fail to do.

Making this proposal is like throwing a stone in the pond. There are inevitable ripples. For instance, this proposal has immediate implications for how we go about designing arts education programmes. Right away, it is clear that scatter-shot attendance at isolated performances in school auditoriums is unlikely, in the extreme, to produce the imagination, the interactions, and the applications

discussed here. It is equally clear that we need to rethink the habitual social organization of artistic learning that focuses intently either on the atelier (where an entire class completes the same exercise in parallel) or the private lesson (where a master passes the torch of technique and interpretation on to an individual student). To enter the social network of artistry students need interactions that echo the ensembles that adult practitioners have invented to organize the production of high-quality objects and performances. These may be chamber music ensembles with several coaches and an audience of other players which provide young musicians with both colleagues and the complex reality of multiple approaches to how the music 'should' be played. Or they could be the versions of opera companies or publishing houses described here. Finally, we can no longer afford to teach artistry as a pure and rarefied activity with no ties, applications, or obligations to the rest of the world. For example, if the audiences for symphony orchestras and contemporary art galleries are to grow, conductors and curators, players and artists will have to be able to speak and write about their work in compelling ways. There is every reason for arts education to model and promote, rather than shun, that engagement. Arts education for young musicians must, of course, concentrate on technique and interpretation. But in a contemporary world, live performances of Schubert compete with CDs, MTV and the radio. It is a myth that magnificent playing (or brushwork or choreography) will automatically fill the hall. Arts education would do well to share a vision of an engaged artistry which includes coaching younger students, writing programme notes, and giving lecture-demonstrations.

The ripples reach out past arts education. Many of these same points could be made about learning in mathematics. There is just as much (if not more) need to rethink the exclusivity of calculus. We clearly have to promote the social networks which would allow students to learn that solving huge problems - as in the calculation of the costs of environmental accidents - requires the company of others. We need students to have and practice a kind of mathematics which can enter and serve the world, rather than standing theoretically aloof and pure.

However, if we want that kind of engaged artistry or mathematics, we must be ready to recognize and reward it where it occurs. Hence, the considerable importance of being willing and able to comment on the entry, gregariousness, and outward turn in the programmes we offer.

Acknowledgement

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Dennie Palmer Wolf

Dennie Palmer Wolf is Senior Research Associate at Harvard Graduate School of Education. Currently, Dr Wolf is the director of PACE (Performance Assessment Collaboratives for Education), a multi-year project in diversified approaches to assessment funded by the Rockefeller Foundation. Throughout her career as an educator, Dr Wolf has argued for the strong and necessary place of the arts and humanities in human development and education. For five years, she was the co-director of ARTS PROPEL, an innovative approach to integrated curriculum and assessment based on practices native to the arts and humanities. One of the project's high schools was named in Newsweek as the best arts education high school in the world.

Dr Wolf is collaborating with the College Board and a national field of scholars to develop rigorous standards, compelling curricula, and worthy modes of assessment in the arts and humanities. Dr Wolf also maintains an active career as a basic researcher, working on studies of narrative and life history. Dr Wolf has published widely in the fields of developmental psychology, linguistics, and education.

Dana Balick

Dana Balick works for PACE at Harvard Graduate School of Education.

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11 MAUREEN COX

Teaching Children to Draw

A number of studies (e.g. ORACLE study, Mortimore et al., 1987; Tizard et al., 1988) have shown that teachers in primary school classrooms in the UK tend to concentrate their efforts on helping children with the 'basic skills' of reading, writing and number, believing that these skills need to be taught, whereas they tend to leave children to draw and paint on their own without any assistance. David Hargreaves and Maurice Galton (1992) have found that teachers tend to use drawing and other artwork as 'fillers' for some pupils while they supervise other activities in other parts of the classroom.

This practice of relegating art to a 'filler' activity results from a number of beliefs and attitudes. I'm going to mention two of them. One is that there is a natural and universal development in children's pictorial representation, and that children will and should go through this development on their own.

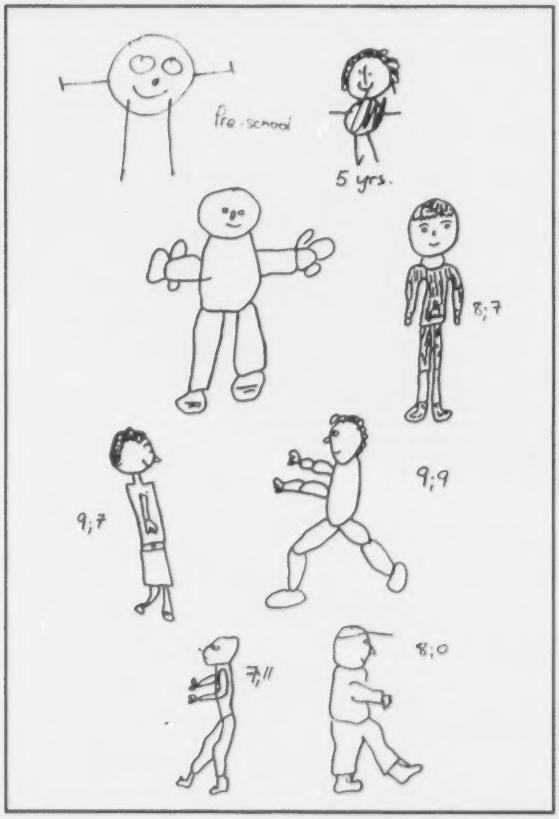


Figure 1. Changes in human drawings as children increase in chronological and mental age.

If we take the depiction of the human figure as an example we do see a development (see Figure 1). (Cox, 1992 and 1993) There's a shift from the so-called 'tadpole' form to a more conventional structure. As chronological and mental age increase more body parts are added. Whereas single lines are used for the limbs in the early figures, double lines are used later. At first, each body part is added as a separate item, giving the figure a segmented look; later,

body parts such as the arms and upper torso are combined with a continuous contour. The proportions of the figure become more realistic. There is a shift from frontal figures to figures in profile. Although children seem reluctant to have one body part cross another 8 or 9 year-olds are beginning to draw an arm masking part of the torso behind it. They seem to be introducing a definite 'point of view' into their human figure drawings.

These developments seem to be so regular that the human figure drawing was thought to be a good candidate for a culture-free test of intellectual ability, a way of comparing children in different cultures without the complications of language. Although the reliability of such tests (Goodenough, 1926; Harris, 1963; and Koppitz, 1968) are quite good the validity is rather variable depending on which age group is being considered. In any case, these are tests which should only be used in a population where this developmental progression in human figure drawings is known to occur.

Although there may be an observed pattern of development in a culture, or even in a number of cultures, it does not follow that this pattern is necessarily 'natural' in some innate or inevitable sense. And, in fact, if we look at other cultures or into the historical past of our own Western culture then we can see that the pattern of development is not always the same.

In the 1930s Paget (1932) documented the many different ways that children draw parts of the body in different parts of the world. The torso might be rounded (Western cultures), sticklike (some African cultures), rectangular (Islamic cultures), triangular (African), and so on (see Figure 2). These differences might reflect physical differences between peoples, or the shape of their particular national dress, or they might simply be different local solutions to the problem of what basic shape you should choose to draw a body part. There probably is no one best way. The torso is sort of rounded, it is sort of square, and long, and triangular where it tapers into the waist. So, all these are reasonable solutions.

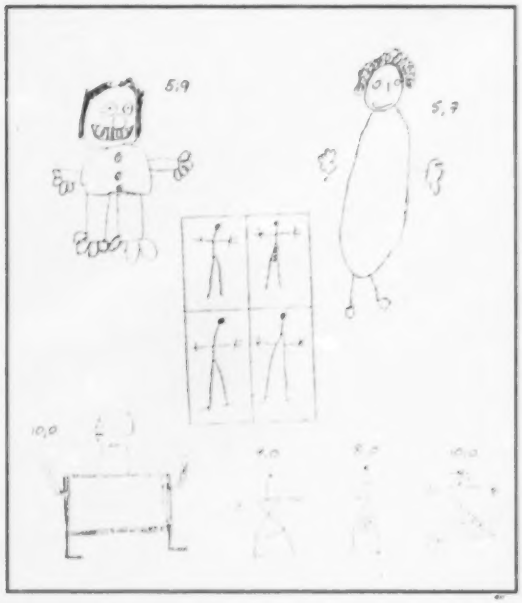
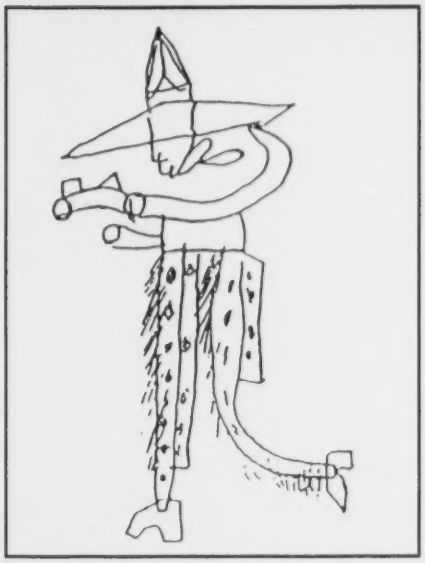


Figure 2. The shape of the torso varies in the drawings of children in different cultures.

When we ask children to draw a figure for us it is not until they are about 8 or 9 that they start to draw them in profile.

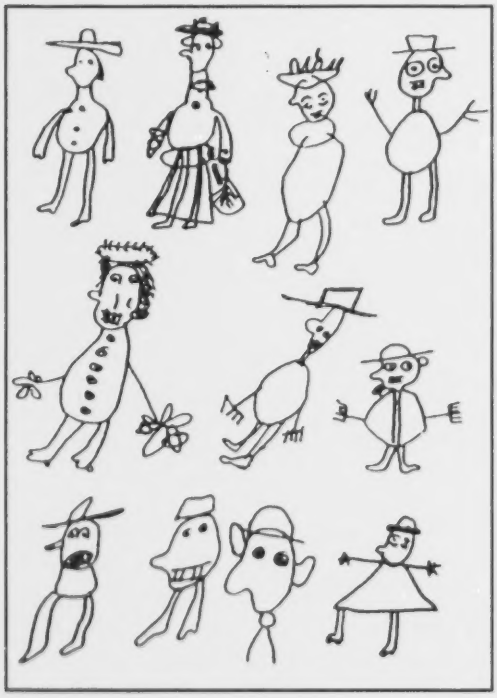


However, if we ask them to draw from a model then 6 to 7 year-olds can successfully draw a profile figure and in fact even 4 year-olds can make some alterations to their normal figures even though adults probably won't recognize it as a profile form. (Cox and Moore, 1994)

If we look at cross-cultural data, again Paget found that among a large sample of drawings from Maori children in New Zealand 61% of the 5 year-olds' figures were profiles and 88% of the 8 year-olds' - much earlier than in Western children's pictures. (See Figure 3.)

Figure 3. Man in profile, drawn by a Maori boy aged 5 years. (From Paget, 1932)

Majorie and Brent Wilson have investigated changing styles in children's drawings over historical time. In the 40-year period between about 1883 to 1923 the two-eyed profile was very prevalent in the United States and Western Europe (see Figure 4). In fact, it was considered that this was a distinct stage between a front-view figure and a profile view. But, this two-eyed profile then sharply declined and by the 1950s it had disappeared altogether. Why it started and why it disappeared is not clear, but it's argued that it wasn't some natural stage in their drawing development that children inevitably had to go through; children were copying the style from others, and it simply spread in this local way as do children's games which spread through an age group and down to younger children.



Some cultures have totally different ways of representing the human figure which to Westerners are not very visually recognizable. In an Australian aboriginal group called the Warlpiri adults, in particular women, tell stories and as they are doing so they draw the characters and their journeys in the sand (Munn, 1973.)

Figure 4. The two-eyed profile studied by Brent en Marjorie Wilson.

The children, not surprisingly, adopt these symbols when they come to draw their own pictures. In Figure 5, 6 year-old Kylie has used the Warlpiri horseshoe shape for the people in the scene. They are all women and each has her own planting stick and baby carrier. In the centre is a well, with lines representing journeys leading up to it. There are also animal tracks. Although an outsider may be to appreciate the pattern and form (and colour) of Warlpiri pictures it is necessary to have this additional knowledge of what the forms refer to in the storytelling tradition in order to have a fuller appreciation.

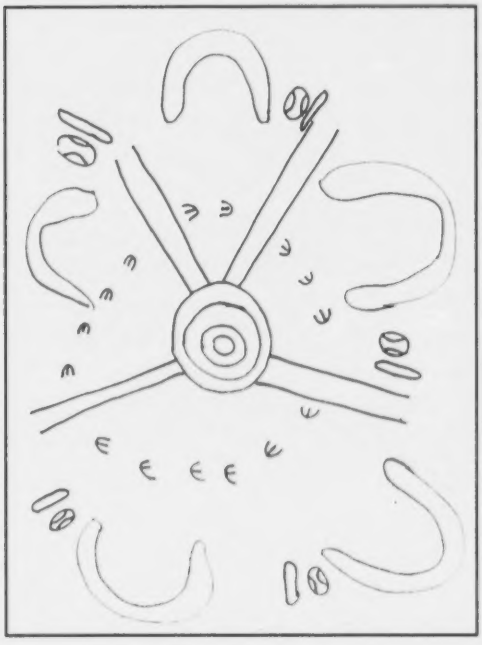


Figure 5. A pictorial 'story' drawn by a 6 year-old Warlpiri girl.

The examples I've mentioned show that although there are developmental patterns, children do not progress in isolation; they are influenced by the images already used by the people in their culture, the adults as well as other children in the classroom.

A second attitude that many teachers have is that they should not intervene in the child's artistic productions since the whole point of children's art is that it is concerned with self-expression, a view advocated by art educators such as Cizak (Viola, 1936) and Löwenfeld (1939). The result has been that many teachers are so concerned not to interfere that they treat children's artwork almost as sacred and feel that their pupils will be psychologically damaged if their work is criticized. Many teachers feel that the most they should or can do is to provide the materials and suggest interesting and exciting topics to inspire children's imaginations. Hargreaves and Galton (1992) describe the teacher's role as one of a 'facilitator' rather than an active participant in the child's artistic development.

As a consequence most children receive little or no tuition in basic drawing technique and as soon as they invent or copy way of drawing objects so that they look reasonably recognisable they may cease to experiment further. Indeed, Brent and Marjorie Wilson (1981, 1984) have shown that the schemas children use are actually rather few and this finding prompted Brent Wilson to remark, '... the child is the most conventional rather than the most creative producer of art.' (p. 23, Wilson, 1992)
After the age of 9 or 10 years (Edwards, 1979) many children are reluctant to draw, often believing that they 'cannot draw' and are 'not artistic'.

In my view, as with any other skill, tuition in art is important both for those who show promise and for those who do not.
Furthermore, I don't believe that tuition will inevitably result in the stifling of creativity or the production of 'wooden' and uninspired work. In the UK art is now a foundation subject in the National Curriculum, which means that it must be taught as a subject in its own right up to the age of 14, and drawing in particular has been focused on.

So, ordinary classroom teachers in primary schools must now worry about how they should teach art. These teachers are not art specialists, they don't know how to teach art and they may well hold the belief that one should not teach it. In a recent questionnaire study in the UK Clement (1994) found that over 60% of teachers felt the need for further in-service training. Whereas teachers have a good idea of the standards expected at each level in most school subjects and know how to teach them they are much less certain in the case of art.

We have known for some time that the standard of children's drawings and painting in China is very high and that the method of teaching is very formal. The teacher often shows the children exactly how an object or scene should be drawn and they must then copy the image from a textbook or the blackboard. The Chinese argument is that although children may have creative ideas they cannot give form to these ideas unless they have acquired the skills. So, skill comes first and creative expression follows later. In contrast, creativity is paramount in the Western view, often with skill very much in second place. Ellen Winner (1987) has pointed out that Chinese methods might be far too formal for teachers in the West but suggested that the two cultures might benefit by taking from each other - the West taking on more formality and China loosening up a bit.

In fact, a number of people have developed ways of trying to help children with some of the technical aspects of drawing while, at the same time, trying to maintain the child's own creativity and inventiveness. These approaches seem like a good idea, but do they work? And indeed what do we mean by 'Do they work?' What many ordinary teachers want to know is whether 'better' pictures will be produced. Their emphasis then is on the final product, although they are also interested in the process, that is whether it is an interesting and fulfilling experience for the children.

I have been evaluating an approach to the teaching of drawing for children aged 5-7 years which was devised by Grant Cooke, an advisory art teacher near London. (Cox, Eames and Cooke, 1994)
Cooke calls it the 'negotiated drawing' approach. In fact, the approach could be adapted for children of any age. The teacher brings real objects into the classroom and puts them into a real or imaginary context. The children, as a group, are encouraged to help the teacher to draw the object on the blackboard by giving him verbal instructions. The teacher deliberately makes mistakes and has to keep erasing and altering the drawing. The idea is that there's an interaction going on between

the teacher and the children - a dialogue, a negotiation - there's not one correct way to draw but it's useful to discuss how something might be drawn and go through that process of changing the image. The teacher doensn't complete the whole drawing, so the children get the idea - not a finished image. In fact, the teacher's drawing is erased and the children do their own imaginative drawings although they can still observe the real object in front of them. (See Figure 6.)

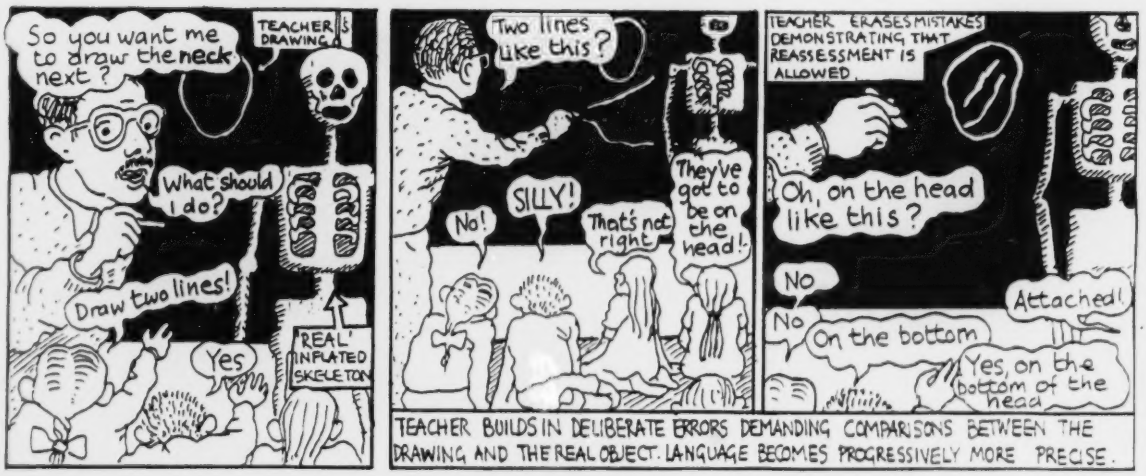

So you want me to draw the neck next?
TEACHER IS DRAWING
What should I do?
Draw two lines!
Yes
'REAL' INFLATED SKELETON
Two lines like this?
No!
SILLY!
That's not right
They've got to be on the head!
TEACHER ERASES MISTAKES DEMONSTRATING THAT REASSESSMENT IS ALLOWED
Oh, on the head like this?
No
Attached!
No
On the bottom
Yes, on the bottom of the head
TEACHER BUILDS IN DELIBERATE ERRORS DEMANDING COMPARISONS BETWEEN THE DRAWING AND THE REAL OBJECT. LANGUAGE BECOMES PROGRESSIVELY MORE PRECISE.

Figure 6. The 'negociated drawing' approach (devised and illustrated by Grant Cooke).

We developed a course of ten drawing lessons, each with a different topic, and then evaluated their effectiveness in improving the children's drawings. We had four experimental groups (see Figure 7). Two had the negotiated drawing approach: one group taught by Grant Cooke and a second group taught by a part-time teacher. In condition 3, Cooke gave ten 'ordinary' drawing lessons and in the fourth group the children's normal teachers taught them in the normal way.

Design of the study

Condition 1	**Condition 2**	**Condition 3**	**Condition 4**
Cooke giving his drawing programme	Teacher trained in drawing programme	Cooke's normal teaching	Teachers' normal teaching
N = 62	N = 54	N = 58	N = 61
30 boys 32 girls	27 boys 27 girls	30 boys 28 girls	29 boys 32 girls
Mean age 5;10	Mean age, 5;9	Mean age 5,9	Mean age 5,9
Range 5,4-6,3	Range 5,3-7;0	Range 5,4-6,11	Range 5,3-6,3

Figure 7. An evaluation study of the negociated drawing approach.

We evaluated the drawings carried out in these experimental sessions but also we gave all the children some drawing tasks before the whole programme started (a pre-test) and we gave theme those same tasks again at the end, after it had all finished (a post-test). Three art advisers were asked to judge the pictures. They

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were given no specific criteria on how to judge the pictures, but were asked to rate them on a 5-point scale where 1 is very poor and 5 is excellent; thus, the judges made a 'global' judgment of each picture. Each judge rated the drawings independently and the agreement among the three judges was quite high. We also asked them to write down the criteria they thought they had used and, again, they mentioned similar kinds of criteria.

We found that the judges' rating were higher for the drawings done by the children in the two negotiated drawing groups and this was generally the case in all the tasks the children were given. An example of 'telephone drawings' is given in Figure 8: the improvement in the pre- to post-test scores of the children in the negotiated drawing groups (conditions 1 and 2) was greater than the improvement made by children in the other two groups (conditions 3 and 4).

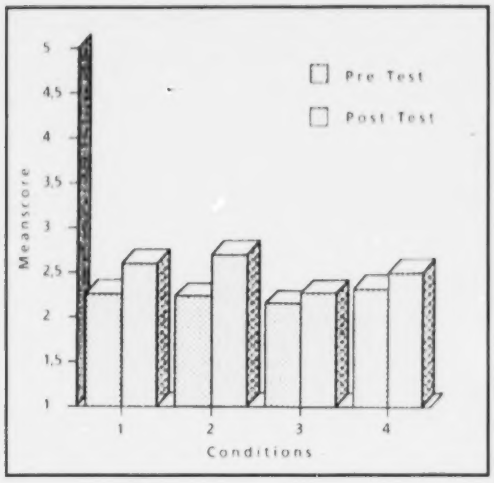

Figure 8. The average pre- and post-test scores of children's 'telephone' drawings in four teaching conditions.

Figure 9. One boy's pre-test and post-test drawing of a telephone.

Figure 9 shows one boy's drawing of a telephone before the programme started and then his post-test drawing after he had taken part in the negotiated drawing lessons. The judges' ratings rose from 1 or 2 to 3 or 4.

Overall, the evaluation study has shown that the negotiated drawing approach leads to an improvement in children's drawings not only for those drawings completed during the lessons themselves but also for other drawings too. Furthermore, it is an approach which produces results not only when administered by a professional art

educator with a vested interest in it but also when applied by a teacher who is a non-art specialist. The part-time teacher in this study was enthusiastic about the approach and willing to try it out but did not consider herself at all good at art. In fact, it is likely that most classroom teachers will also feel poorly qualified in this respect. (Clement, 1994)

So, the finding that the drawings of children in this part-time teacher's class improved after the programme is very important; if this kind of approach is to be recommended, then it must be shown to be effective when tried by an 'ordinary' primary school teacher.

There are a number of different factors involved in the negotiated drawing approach: objects are produced for observation, they are usually set in an interesting and dramatic story context, children and teacher are engaged in an interactive negotiation about how certain objects are to be drawn, and so on. At this stage we cannot say whether all or only some of these aspects of the approach are necessary for its success. Since the children taught in the ordinary way were also given topics which were often presented in a story format, we suspect that the most effective parts of the negotiated drawing approach are likely to be the observation of real objects and the negotiation of the drawing. It will be for further research studies to tease out the relative importance of these different aspects.

It is important to stress that the negotiated drawing approach does not mean that children are taught rigid formulae for drawing objects or are indoctrinated into a particular 'correct' way of drawing; on the contrary, the approach allows discussion of the different ways of drawing things and should encourage a greater flexibility in the representations children employ. This should be advantageous not only in improving children's artwork but also their drawings used for recording and understanding material in other areas of the curriculum.

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Maureen V. Cox

Dr Maureen V. Cox is Senior Lecturer in Psychology, Department of Psychology, University of York, UK.
She lectures in Developmental Psychology and her main research interest is children's pictorial representation.
Current project: cross-cultural study of children's drawing in the UK and China (funded by a grant from the Royal Society, UK).
Recent books:
Cox, M.V. (1991) *The Child's Point of View*. Second edition. Hemel Hempstead, Herts.: Harvester/Wheatsheaf and New York: Guilford Press.
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Effects of Arts Education in Primary and Secondary Education on Cultural Consumption and Socio-economic Careers in Later Life

INTRODUCTION: ISSUES AND RESEARCH QUESTIONS

Previous research on arts participation amply suggests that one social group excels in the arts, whether this is visual, musical or verbal art. Arts participation - at least when this is defined and restricted to be participation in high or 'legitimate' arts - is most often found among the higher educated. This result holds for all forms of art, it holds internationally and it is as true now as it was thirty or forty years ago. This is not to say that there are no variations in the relationship between educational status and arts consumption. Some important qualifications can be made. First, the overrepresentation of higher educated seems to be mostly determined by differences in secondary education: whether one has received a tertiary degree and whether this is a vocational or an academic one does not matter much for one's chances to become an arts consumer - the main dividing line is between vocational and (higher) academic tracks in secondary schools. Second, there are variations between art forms in their attractivity to the higher educated. In general, the characteristic of art forms that determines this attractivity most seems to be their cognitive complexity. Among the audiences of unconventional and otherwise complicated art forms, the overrepresentation of the higher educated is stronger than elsewhere. However, even art forms with relatively low cognitive complexity or art forms that mostly demand non-cognitive, e.g. musical, skills still have a large overrepresentation of higher educated in their audiences. Third, there are both cross-national and historical variations in the overrepresentation of the higher educated, but these sometimes run counter to common sense expectations. For example, Faasse & Ganzeboom (1986) and Knulst (1989) find increasing differences between higher and lower educated. Ultee et al. (1993) find wider differences between higher and lower educated in socialist countries than in market societies. Although these variations are substantial and important to understanding the mechanisms that generate the association between education and cultural participation, they must not distract us from the fundamental regularity of this association itself.

The association between education and arts has often been taken as a confirmation of one causal explanation, the instruction model of arts participation. This model assumes that the arts constitute complex information that the potential consumers can be trained to understand and enjoy. The instruction model basically explains the association between arts participation and education as a result from the higher level of arts instruction that goes on in higher forms of education. The divide between vocational secondary training and academic secondary training, as well as

the limited additional effects of tertiary education nicely corresponds to realistic assumption about the degree of arts training that goes on in these respective schools. Intrinsic to this interpretation is the image of the school as an effective school. Schools are able to instruct and train their students into whatever subject is chosen to be part of the curriculum. Conversely, life chances in modern societies are strongly determined by what one learns in school. In this model, schools may be able to repair or compensate deficiencies that children bring to school. In the case of arts participation, where parental background is known to be an important influence, this would mean that children who have not experienced cultural socialization at home, may become as active in the arts as their classmates.

Before accepting the instruction model as the one and only truth, it is necessary to point out that alternative interpretations of the association between education and arts interpretation are available and, indeed, plausible. In particular two alternatives are conceivable: the general ability model and the family background model. While these two models have fundamentally different assumptions about the conditions that need to be fulfilled to become an active arts consumer, they have in common a criticism of the instruction model, namely the idea that the association between education and arts consumption is mostly due to selection, i.e. the higher educated become arts consumers for reasons that are favourable to both educational advancement and arts consumption, but there is no causal effect from the latter on the former.

The general ability model still agrees with the instruction model in the assumption that arts consumption is mostly a process of understanding and enjoying complex information. However, the reason why higher educated are better equipped for such information processing is not the transfer of arts-specific knowledge and abilities, but the fact that schools train and select on general cognitive abilities and expertise. Whether educational advancement is mostly a matter of selection on genetically determined intelligence, or that the educational process produces differences in abilities and knowledge, may be a matter of further debate. However this may be, the argument remains that arts instruction is unimportant relative to more general sources of cognitive abilities. The general ability model can explain the association between education and arts consumption in a simpler way than the instruction model: in particular, one does not have to assume a close correlation between level of schooling and amount of arts instruction. Much to its credit, the general ability argument also can explain why audiences of some art forms (e.g. opera) still show a large overrepresentation of higher educated, whereas there are not instructed in schools at all. However, the crucial test between the instruction model and the general ability model is, of course, in the direct effect of instruction on later participation: to what extent does instruction lead to higher participation?

An interpretation even more critical of the instruction model is the family background model. In this interpretation, arts consumption is not (only) seen as the individual processing of complex information, but (also) as a socially determined choice of behaviour, in which one needs to be socialized. The best breeding ground

to become an active arts participant is the social network in general, and the parental family in particular. Although not always acknowledged in the research literature, it is striking that cultural socialization in the parental family - when investigated - is generally found to be equally conducive to arts participation as level of education. E.g., De Jager (1967) found that those who became first initiated to classical music in the parental family, remained more active participants in later life than those who visited concerts for the first time with school or friends. The importance of cultural socialization has been amply documented in subsequent research. However, we need an additional assumption to explain why the effect of family background may lead to a close association between culture consumption and level of education. This argument can be found in the cultural reproduction theory of social stratification of the French sociologist Pierre Bourdieu. (Bourdieu & Passeron 1970, 1979)
In this theory it is claimed that a cultured family does not only promote the arts participation of its offspring, but also its educational chances. According to cultural reproduction theory, being socialized in the arts helps one to survive educational selection: the culturally socialized become the better educated. According to this interpretation we also should find a cultivation effect of school and cultural socialization at home: those who have become cultural active at home are more sensitive to arts instruction than others. Conversely, arts education is most effective to those who have been prepared to it at home.

It should be clear that in this interpretation arts education in schools cannot help to remedy social inequality in access to culture. In fact, it works the other way around. The more important arts and culture become in the school curriculum, the more 'home advantage' (Lareau, 1989) the children of the higher educated and the culturally active will have - this is in a nutshell what 'cultural reproduction' means.

In sum, before hastily concluding that arts education is an effective way of promoting arts participation and can potentially be used to increase the widespread and democratic enjoyment of the arts, it is necessary to investigate the precise effects of arts education and explore further the causal connection between educational advancement and arts participation.

The analysis of effects of cultural experiences in early life need not be restricted to effects on arts training received in school. In particular the family background model makes much further claims about such effects and these can and must be investigated as well. Bourdieu's cultural reproduction theory sees cultural socialization in the parental family as one of the most effective mechanisms of social closure in a modern society, where income and price mechanisms have lost much of their effect. Unlike financial barriers, the command of culture is not easily marred by government interventions. Bourdieu sees effects of cultural socialization in the parental family much beyond educational selection. In particular, Bourdieu claims that having a cultured background and the command of cultural codes in general, promotes one's chances to become a member of a cultural elite. Therefore, one would expect cultural socialization and its effective confirmation in education

to further one's chances to higher status in society, in particular with respect to occupations and social network. Testable hypotheses, for which Bourdieu claims empirical confirmation, are that the command of cultural codes leads one into high status occupations in cultural fields (say, in teaching, science or government service), as well as to higher educated friends and - finally - spouse.

Ironically, similar claims with respect to effects of arts education are made from a quite different angle and with quite different evaluations. In educational policy debates one finds the claim that the choice of arts education is detrimental to a person's life chances, in particular in further education and the labour market. Choosing arts as part o one's curriculum in secondary school would lead students away from fields with higher intellectual challenge and/or practical value. It would reduce the amount of further options that are available in tertiary education and label the student in labour market selection process. This might very well lead to a strong effect of arts education on the choice of further education and potential occupation - however, according to this view these are not well described as 'cultural elite', but rather as 'second rate'. While this constitutes a totally different evaluation of the effects of arts training, the empirical expectations alluded to are much the same as in Bourdieu's empirical reproduction theory: arts training leads to a limited set of continuations in higher education and in the labour market, as well as to a specific selection of one's social network.

In this paper we review empirical evidence on the validity of all these claims about the effects of arts education using data from two projects, one already concluded (Ranshuysen & Ganzeboom, 1993), and another one still in progress. (Nagel et al. 1995)

RESEARCH DESIGN AND DATA

Investigating the effects of arts education on later cultural participation and socio-economic careers is not trivial. The theoretically most attractive way of collecting relevant data would be to collect student cohort data. This would involve questioning (and observing) students, their parents and schools very early in life, and monitor their developments throughout their life-course. While this research design is conceptually appealing, it must be clear that it would take a while before any conclusions about effects could be drawn: say, twenty years. And to its disadvantage, such conclusions would be restricted to the cohort investigated and not inform about historical changes. While there are such principal disadvantages to the student cohort design, there are even more severe practical problems with these designs. The costs are high, and the risk of disruptions, both at the individual (student, parents, school) and project level are severe.

The only practical alternative to a student cohort research design is a retrospective design, in which one compares information about current situation with memories about the situation in adolescence. When one collects data on respondents of different ages, the retrospective design has a crucial advantage over the cohort design: the retrospective design informs one about effects at different points in

historical time and therefore one is able to assess historical chances. However, there are also problems with the retrospective design. To which extent can one trust retrospective data to reflect accurately the situation in the past? In particular, how large is the influence of known response biases, such as the tendency that respondents report closer consistency between current and past behaviour than is actually warranted? Although they are the only viable alternative to collecting relevant evidence, it remains clear that retrospective data need to carefully interpreted and every effort needs to be made to control response tendencies.

The first project we report on assessed the effects of two arts education programs that took place in the city of Amsterdam. Both programs were centrally administered by the city government to primary schools students throughout the city. Because schools could choose to stay outside the programs (and some did), all students within a given school were affected by the program or not, which is an important feature of the research design: it makes that we do not exclusively have to rely on subjective information on arts education but in principle have a quasi-experiment at our hands, with an objective measure of arts education.
The two Amsterdam programs are called Museum Lessons ('Kunstkijkuren') and Music Lessons ('Muziekluisterlessen'). The two programs differ somewhat in their approach, as well as in their objectives. In brief, the Museum Lessons consist of ten one-hour visits of primary students to some of Amsterdam's most renowned visual art museums. The lessons are taught by a special teacher, often an artist by vocation. The instruction method used has been described as 'socratic': there is in fact little instruction about the art objects, but in stead questions are asked to the students, while seated in front of a painting or sculpture. The ten Concert Lessons are also taught by a special teacher, instrument in hand, but most of the time in school. The students visit only one (mass) concert, at the end of their series of ten lessons.

These Amsterdam art education programs are unique in the Netherlands in the continuity of their existence for almost forty years. While similar programs sometimes have existed elsewhere, we have found no other example of similar continuity, both in existence and approach. This is the reason why the Amsterdam program was chosen to test the effects of arts instruction programs.

It is to be noted that these Amsterdam programs are administered to students of 10-12 years old in primary schools. This has the important methodological advantage that selection effects can play no, or only a minor role in this case, since primary education in the Netherlands is truly comprehensive and there are no clear quality differences between schools. While in the case of arts education in secondary schools (see below) one needs to control the fact that more intelligent and abler students go to higher level schools, there can be no such selectivity bias in primary schools. We still introduce control variables to counter selectivity interpretations. At the same time, one needs to be cautious about age sensitivity effects: when one finds only minor or no effects of arts education at primary school age, this maybe due to the fact that students in this age group are not very

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sensitive to arts instruction, and not speak against arts instruction per se.

The second project we report on is still in progress and deals with the effect of arts education in secondary schools, and in particular those forms of arts education that were an optional part of the graduation exam. Such formal examinations have been in existence since 1975. This research project investigates the cultural and socio-economic careers of students who took the examinations between 1975 and 1985 and are now between 25 and 35 years of age, and compares these to the careers of their school/class mates who did not take these arts examinations. In total, we have collected data of over 1000 students who originated in 31 secondary schools and who are distributed almost equally among the examination and the control group. Again, like in the Amsterdam project, we use the terminology of experimental design to evaluate the effects of arts education. However, there is a crucial difference with the Amsterdam project, since taking the arts education exams is an option and students have selected themselves into the 'experimental' and 'control group'. We can therefore never exclude the possibility of selectivity bias, i.e. that differences between experimental and control groups were already in existence before the choices were made, and cannot be attributed to the effect of arts instruction.

While this remains a weakness of the design, we have good ways to counter it. It is well documented that the main determinant of arts participation in later life other than formal education is arts participation in the parental family and it is likely that children from cultured families are more likely to choose the arts examination program. By measuring arts participation in the parental family in a most accurate way, we can at least control the main potential source of selectivity bias. In both projects, we can use two methods to identify the degree of cultural socialization in the parental family. The first measure is the degree of cultural participation of parents of the respondent, and the second measure is the degree of cultural participation of a sibling (brother or sister) of the primary respondent. The secondary school project surpasses the Amsterdam project by using much better measures of these control variables, viz. by collecting independent information about the family background among the parents and siblings themselves. While in most research (such as the Amsterdam project) such information is collected indirectly, namely from the primary respondent, and one runs the clear risk to mix up selectivity bias with response tendencies, in the secondary school project we have been able to collect the information independently. By interviewing both a parent and sibling of the original respondent, we have a double strategy of controlling the influence of family background. Not only have the parents told us about their own cultural participation, but also can we compare primary respondent and his/her sibling. Their resemblance will permit us to estimate the total influence of the parental family, and by comparing the resemblance between siblings with the resemblance between school/class mates, we will be able to determine the relative effectiveness of schools and the family for cultural outcomes.

Another way in which the design of secondary school projects surpasses the

Amsterdam project is that in this case we do have individual information on participation in the arts education program, namely from school records. In the Amsterdam case, such information was not available at the school level, and turned out to be very unreliable, and we used the respondents recollection of participation in the program as the treatment variable. This may of course be inaccurate. In the secondary school project the records about taking the arts education examinations is accurate, since it derives from semi-legal records.

There are some drawbacks to the design of the secondary school project as well. First, while arts education examination can be taken at most levels of secondary schooling, we have had a hard time to find examples at the lowest level - lower vocational schools. Our sole representatives are textile arts examinations in lower vocational schools. This means that unlike our Amsterdam research the secondary school project does not cover the range of the population.

RESULTS

The results from the Amsterdam project are reported (in Dutch language) extensively in Ranshuysen & Ganzeboom (1993) as well as in Ranshuysen (1993). Here we will only summarize the results.

First, somewhat contrary to our surprise, we found a statistically significant effect of both arts education programs on later cultural participation. Our sceptical expectations were mainly based on the consideration that a long time (8-28 years) had passed since the respondents had received the treatment in the final year of primary school, at age 11 or 12. Although statistically significant, the effects we found were small. We used two expressions for the size of the effects. The standardized partial regression coefficient for the treatment varied around .10.[1] A second expression for the size of the effect was the estimated additional frequency of participation in museum going, respectively concert visits. These were found to be around 20%. While these effects may be small, one must realize that the treatment variable covers only a limited experience in a respondent's lifetime experiences with the arts. It is only a small series of (ten) lessons that has been shown to have an effect on cultural participation in later life, and it is therefore no surprise that the effects are also small. However, the results are theoretically important because they show that instruction matters, and they give firm ground for the expectation that more elaborate instruction would bring larger effects.

The estimated effects are net of possibly confounding influences, such as parental background, parental cultural participation, ethnicity and current age of the respondent. Since this was a field experiment with a true treatment and control group, these control variables should not matter much to the outcomes, and this was indeed the case. The treatment group was not very different from the control group in terms of age, ethnicity and parental background. This shows that participation in the arts education program was not conditioned by prior experience. As a matter of fact, a slight tendency was found for the control group to have come from higher status and more cultured background than the treatment

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group. This is probably caused by the fact that some schools who did not participate in the program were schools who had an elaborate arts education program of their own and considered the centrally administered program superfluous.

The second result from the Amsterdam project is about the effects of the control variables. While the control variables and the treatment turned out to be not associated with one another, it is still interesting to compare their relative effects, as well as their combined effects. The important finding about the relative effects of social background and arts education is that the effects of social background are about three times larger than that of arts education. The most direct indicator of social background is the degree of cultural participation of the parents, which is conceptually a parallel of the arts education programs in schools. We were also able to compare the relative importance of formal education and parental family by comparing cultural participation of respondent and his/her sibling. This sibling analysis again showed that in this sample parental background is more important than formal schooling, and that general ability effects of schooling are also more important than arts instruction effects. In sum, the most important determinant of someone's cultural participation as an adult is early cultural socialization in the parental family, the second most important the general training and selection received in education, and the least important one the arts instruction received in education. While the Amsterdam research shows the effectiveness of arts education in principle, it also mitigates our expectations of arts education as the principal determinant of arts participation.

A third result from the Amsterdam program was on the combined effect of arts education and cultural socialization at home. To what extent do these condition each other's effect? There are two possibilities. One would be - and this is much in line with Bourdieu's cultural reproduction argument - that children from a cultured background are more sensitive to arts instruction in schools. This is what we labelled the cultivation model. The other extreme would be that schools are able to offer children from less cultured background opportunities that others have already had at home. This is what we call the compensation model. The evidence was slightly in favour of the compensation model. Students from lower social and cultural backgrounds were more likely to react favourably to arts education than students from higher social and cultural backgrounds. Or to put it differently, one can become an arts consumer either in school or at home, it does not necessarily take both.

A somewhat puzzling result of the Amsterdam research was that the effects of the arts education program were not found to be discipline specific. The effects of the museum lessons and of the concert lessons were of about the same size, although the didactic designs of the program were quite different and we had expected that the museum lessons would prove to be the most effective ones. This expectation was based on the consideration that the museum program did take the children more frequently out of their school environment, as well as the consideration that

schools are generally more effective in teaching cognitive competencies than non-cognitive competencies, such are music appreciation skills. Neither consideration turned out to be true. An even more disturbing result from the Amsterdam research was that the Museum Lessons appeared to have an effect on concert going in later life, and that the Concert Lessons appeared to have an effect on museum visits in later life. While these two are hard to separate (many respondents had been in both programs) and there is a possible explanation that the effects of the programs generalize into different disciplines, it may also be the case that we are lured by response biases.

Finally, we also explored the effects of arts education on other aspects of later life, in particular final educational attainment, occupational attainment and choice of a spouse. In neither case, there was an appreciable effect of the arts education program in later life. Again, it is important to compare this result with the effect of the control variables, in particular the cultural participation of the parents. The Amsterdam research, like many other investigations, showed that cultural background is indeed an important determinant of success in later life. In particular, people from cultured families do better in secondary and higher education (with parents' education controlled) and marry higher educated partners (with their own education controlled). There seem to be no effects of cultural background on occupational attainment.

The analysis of the secondary school sample is still under way and will be reported by Nagel et al. (1995). Given the results of the Amsterdam research project, it will be particularly important to see whether the effects of arts education, in secondary schools, is larger than found for the primary schools programs. Since we have better measures for the contents of these programs, as well as independent measurement of both the treatment and the control variables, the design of this project will be more conclusive than for the Amsterdam research. Our expectations are that the effects of the arts examinations on later cultural participation will be found to be larger, since the programs involved are much more elaborate treatments and for this sample less time has elapsed between the treatment and the criterion measurement. We also expect that the effect of arts education in secondary schools on the socio-economic careers will be much larger than for the primary schools, in which they were almost non-existent. This is so, because entering the arts educations program and taking the examination becomes a formal degree, that is used for qualification in further education and in the labour market.

CONCLUSIONS

There is a close association between education, arts training and cultural participation in later life. Arts consumers are often higher educated and have more often received arts training in school than non-arts consumers. However, it would be naive to interpret these correlations as a simple causal chain, implying that arts consumers are found to be highly educated, because schools trigger people to become culture consumers by teaching them the necessary skills. It may be that more schooling produces higher culture consumption, whether it contains much

Table 1: Design of the two projects; (expected) main results.

	Amsterdam primary schools program	Arts examinations in secondary schools
Sample	1061 inhabitants of Amsterdam, interviewed in 1992, then 25-40 years of age.	1035 former secondary school students, sampled from the examination records of 31 secondary schools at four different levels, interviewed in 1994, then 25-38 years of age.
Arts education treatment	'Museum Lessons' and 'Concert Lessons' administered at age 11-12.	Graduation examinations program in Visual Arts (drawing, textile, handiwork) and Music, taken at age 15-18.
	Field experiment: compulsory participants in treatment versus control group from schools that did not participate.	Quasi-experiment: voluntary participation in treatment versus control groups (non-participants in same classes/schools)
Method of data collection	Telephone survey	Telephone survey with former students and their parents
Response	50%	65%
Results	*Small, but significant effects of arts education on later culture consumption. *Main determinants of later culture consumption: (a) cultural socialization in parental family, (b) level of schooling. *Little of no effects of arts education on socio-economic career. *Arts education somewhat more effective for children from lower status background.	EXPECTED RESULTS: *Larger effects of arts education on later culture consumption. *Larger effects of arts education on later socio-economic career.

arts education or none. And it may be so that culture consumers are higher educated, but this is only so because the cultural resources in the parental family influence both education and cultural participation.

In the Amsterdam project, we have been able to sort out these different interpretations by using a field-experimental research design in which there is arts instruction independent of amount of schooling received and family background. The introduction of control variables served to document that the field experiment was indeed successful and the treatment effect can be attributed to the Amsterdam arts education programs. The important finding is that these arts education programs indeed had the effects hoped for by their initiators. Students who had participated in the Museum Lessons or the Concert Lessons in primary schools were more active cultural participants in later life than those who were in schools who had not participated. While the effect was found to be small, it was not only statistically significant but also theoretically important, since it rules out that selection effects are completely responsible for the association found between level of education, arts education, and cultural participation. However, the large effect of the control variables used in the design, in particular of the cultural participation of

the parents, should remind us that the parental family remains to be the most important agent in someone's arts education.

Notes

1 Technically, this means that one standard deviation of the treatment variable (having been in the programmme or not) was associated with one-tenth of a standard deviation of the criterion variable (a multiple indicator index of cultural participation) controlling the potentially confounding influence of parental characteristics.

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Harry B.G. Ganzeboom

Harry B.G. Ganzeboom (1953) is professor of sociology at the Department of Sociology of Utrecht University. In his 1984 dissertation he investigated cultural participation as a way of processing complex information and sought to explain audience characteristics from the informational demands made by the contents of the culture offered. In other work he confronted this psychological theory of cultural participation as information processing with an sociological account that interprets cultural participation as a process of behavioral confirmation and social approval. He has published widely on cultural participation in specific fields, with reports on film going, museum visitors and the audience of theatre and concerts. He is currently working on a project that assesses the effect of arts training in secondary education on cultural participation and status attainment in later life. His other research interests include social mobility, internationally comparative research and social inequalities in consumption.

13 JOAN FREEMAN

Children's Talent in Fine Art: Optimisers and Obstructions

I am concerned here with looking at how talented children do - and do not - develop their potential in normal schools. I'm sure, though, that I don't have to point out to any art teacher that fine and beautiful work is not sent from heaven, but is the result of good teaching, adequate materials, plenty of practice, and encouragement. Indeed, whatever their talent, all children need help to make the best of it. For this, the teacher's primary aim is to guide pupils in how to organize their increasingly complex impressions and skills, so that the pupil's performance may be maximized.

Children's talent in the arts is considered here as the development of natural ability to a standard which few of their age-peers could reach. Although clearly a child must have the potential, life circumstances are of vital importance to its development. Research shows clearly that social and economic influences strongly affect, not only the quality of performance, but also an individual's aims in life. (Freeman, 1992)

But in life nothing is heard or seen in isolation, and the context in which children have their experiences has subtle and important effect on the perception of even the simplest line drawings or sounds. So, neither development nor performance can be looked at separately from the environment in which they function. You can see the effects of the social context in the ways an individual deals with a problem, which may change radically in different situations. For example, a child may think more creatively at home but conform at school; or he may fail with school-type learning but be highly successful in the demands of the street gang.

Talent in music and fine art is not unrelated to other abilities. Individual development of perception and interpretation is influenced by very similar mental and physical experiences - the effect of practice is so important that it can even overwhelm some differences in native talent. (Elshout, 1995)

The most important early source of these experiences is the home; parental attitudes and the provision of appropriate materials with which to practice. (Freeman, (1995a)

Teachers know that the style and efficiency of children's learning and thinking is fairly well set by the time they reach the classroom. All long-term studies have shown the cumulative effects of family attitudes in the development of talent (Bloom, 1985; Czeschlik & Rost, 1988; Heller, 1991; Freeman, 1993; Arnold & Subotnik, 1994), as indeed for school ethos. (Rutter et al., 1979; Sylva, 1994)

In biographical case studies of outstanding individuals such as Darwin and Piaget,

Wallace and Gruber (1989), amongst others, have found a similar combination of family events and potential. But when a child starts school, new experiences, teaching, and expectancies should begin to operate. Unfortunately, for too many children the key work is still 'should'.

Aesthetic ability is probably universal in normal children. Kodally, the Hungarian composer, believed that everyone is born with musical ability, and using his techniques based on folk songs, all Hungarian children are taught to sing. Playing the violin with Suzuki's method has now spread around the world, and yet it was not thought possible to teach young children to play such a 'difficult' instrument only a few years ago. There does not seem to be a comparable universal teaching procedure for fine art.

However, formal education is not the only way to develop talent: art in unschooled societies can, of course, be superb. Indeed, visual thinkers can come up against particular problems in the normally structured classroom, when their learning style is not compatible with that of the instruction. (West, 1991)
For example, the visual thinkers Einstein, Edison, and Churchill all did badly at school. Additionally, if special education in the arts is limited to selected groups, however good the selection procedure, there will inevitably be those whose potential contributions are not fully developed. Where either home or school is less than adequate in offering encouragement and teaching, children are accordingly obstructed in their progress. For those from culturally poor backgrounds, school teaching becomes even more important, both as an introduction to aesthetics and for access to equipment.

The sooner the open mind and supple fingers of a young child begin to practise the skills of an art, the finer his or her perceptual ability and techniques are likely to become. Ability to play an instrument is especially vulnerable to a late start and to the lack of the right instrument at the right time.

MEASUREMENT IN THE ARTS

Reports from research suggest that aesthetically talented children are likely to be above average in intelligence, though the relationship between cognitive ability and creativity is unsure. Tests of fine art are very few, and those for musical ability are not always reliable. The major problem of measurement in the arts is one of aesthetic interpretation - often a matter of contention between experts - so that it is much easier to assess performance.

But even this has its problems. Norman Freeman (1995) has shown how the drawing of young children is hampered by what he calls 'production problems'. This is because the dual development of young children's conceptual schema and graphic skills is not parallel, making it hard to judge their attempts at either appreciation or creativity. Added to that there is a 'bio-mechanical' i.e. physical bias in graphic development, which is not apparent in music. Possibly such physical problems are the reason why infant prodigies are rarely found in fine art, but much

more frequently in music. Painters can start and reach their peaks much later in life than musicians.

AESTHETIC PERCEPTION

All perception begins with pattern recognition - the extraction of figure from ground - such as the theme in an orchestrated piece of music. Because the patterns tend to become perceptual habits, which are difficult to change, it is important to expose children as early as possible to variety in the arts.

In receiving information, there is a distinction between the bio-physics of light and sound and the psychological effects of the environment, both of which impinge on the child's sense to influence the development of perception. Light rays hitting the retina, for instance, will reach the brain in a psychologically 'processed' state. Each person's private impressions of sensations are shaped by both the physical reception of images and by experience, which includes language. As ideas change, so does the living language, altering perceptions, imagery and relationships of people with the world. As an example, environmental pollution was little considered until relatively recently, but the concept and the language now in use to describe it, have altered the ways in which children and adults feel and behave towards nature.

Memory affects perception too; there is a difference in remembering an image and the remembered impression of that image. Short-term memory keeps the immediate impression for a few minutes, so that the first items of a sequence are more easily reproduced. Long-term memory requires more effort to recall the image back to consciousness. As even children's energy is limited, this means that most will choose the least effortful route - the short-term and the least complicated - it is the talented who are more likely to enjoy the challenge of the complex.

From the evidence available, it appears that abilities in music and art improve with age. But it is hard to say with certainty whether it is better for a child to have an early, concentrated aesthetic environment or a gradual building of skills, to most closely fulfill his or her artistic potential. In my fourteen year follow-up study in Britain (Freeman, 1991), I found that there are very many reasons why some very precocious children fail to carry their promise into adulthood. Sometimes emotional problems get in the way, and sometimes failure to develop potential may simply be due to inadequate educational provision. Many great musicians and artists, such as Mozart and Picasso, were precocious in their genius and stayed that way, both being from very strongly supportive homes. Others, such as Van Gogh and André Prévin, did not develop their talents until past childhood. (Radford, 1990)

A study of aesthetic development in children

Given the problematic nature of assessment of aesthetic ability by tests of artistic and musical ability, it seemed to me to be safest to look at children who were clearly recognizable as exceptionally talented. The plan was to compare these children, as judged by experts (not me) with a matched control group of average ability children.

THE SAMPLE

The population sampled was that of the north of England industrial city of Salford. There, music and art tuition was supplied free of charge in the schools. The city offered the services of a visiting music teacher to every school, on condition that at least three children in the school wanted to learn the same instrument. There was a token hire cost for the instrument, and singing and fine art were part of the normal school curriculum. Hence, neither the availability of provision nor the parents' ability to pay for it were factors affecting a child's access to tuition in these arts. In theory, every child had equal educational access to potential excellence.

Musically talented children proved to be relatively easy to find as there was a widespread sensitivity to it in the schools, as well as via the two children's orchestras run by the city. Fine art, however, appeared to be not only less valued, but teachers hesitated to distinguish between their pupils' ability. The first postal request for young fine-artists sent out by the city's Director of Education produced almost nothing. I was obliged to take hundreds of art works from dusty cupboards and classroom walls to my bank of experts for judgement. This distinct split between teacher attitudes towards music and art is possibly a cultural feature of this part of the country where musical experience, such as in brass bands, is common, but the visual arts are less familiar. It may be different in The Netherlands.

Eventually, twelve children outstandingly talented in music and twelve children outstandingly talented in fine art were selected. They were aged between 8 and 11, about equal numbers of boys and girls. Each of them was matched as closely as possible with two control children in the same schoolclass - of the same age, sex, social-economic level, and general intelligence. The complete sample was thus made up of 72 children, 72 families, and twelve schools.

PROCEDURE

The children were given tests of personality, intelligence, verbal fluency, and an interest questionnaire. As the talented children had been chosen only by virtue of their performing ability, coordinated measures of their aesthetic appreciation were devised for this research. They were completed by all the children, and results were compared across the groups.

Short-term memory was used as the measurement criterion in these special music and art tests: it was regarded as the most accessible function of developed perceptual ability in these two areas. Talent is most likely to show up best in novel situations (English, 1992), and would be expected to affect the accuracy and speed of recognition.

Three aspects of memory in music and art were tested:
- memory and recall of individual sounds or colours
- aesthetic discrimination of style in painting and music
- practical presentation of relationships in drawing and playing music

The parents were interviewed in their homes for over an hour with a pre-rated questionnaire designed for the purpose. Homes were rated for aesthetic content in the usual way - subjectively - but at least all the bias was in the same direction as there was only one assessor. Class teachers filled in a standardized questionnaire on the children's behaviour in school. All the schools were visited several times and the head teachers were (on the whole) prepared to answer questions.

RESULTS

There were four groups of children in the sample - musically talented children and their controls, children talented in fine art and their controls. Comparisons were made between them on all the information which had been collected (121 variables).

The children who had been selected as talented did distinctly better than all the other children on tests of their respective talents - the experts and my tests were in agreement. But there was some overlap on these aesthetic tests for the two sets of talented children, so that they were more alike in their scores than their two control groups. This was closer for musical memory than fine art. Drawing ability, in particular, remained outstanding among the fine-artists. There appeared to be an aesthetic factor in operation. But there was more to the children's talent than just knowledge and practice.

When the talented children were asked how they had first received incentive in both music and fine art, they replied as in Table 1.

	Musicians		Fine artists	
Incentive	Music	Fine art	Music	Fine art
Home	7	1	5	6
School	5	0	0	6
None	0	11	7	0
(numbers of children)				

Table 1 Incentive to practice music or fine art.

Musically, parents appeared to have more influence than the schools: the fine-artists said they had not received musical inspiration from school. Home and school were about equal in the promotion of fine art. But they were also about equal in their failure to inspire the control children in either area, of whom 44% found nothing to stimulate their interests. Although the twelve schools in this sample did have some influence in helping children to practice these arts, whether a child continued to flourish in that field or not seemed to rest heavily on home influence and support, especially for musicians.

It was the long parental questionnaire which highlighted the differences between the home backgrounds of the children. Although all the talented and the control children had had access to the same school influences, the talented were seen to

live in homes which were particularly generous in parental encouragement, material provision for practice, and lifestyle.
It is known that culturally disadvantaged children find it more difficult to practice and increase the complexity of their early perceptual learning. This deficiency can be seen in little children who are below average in recognizing objects and situations, and are also less able to describe them. (Siegler, 1991)
Children from unstimulating homes where playmaterial is scarce, have been measured as falling significantly behind others by the time they reach 5 years-old. (Mascie-Taylor, 1989)

There was little difference between the groups of children in general intelligence, verbal fluency, gender, or reported development: the musicians were, though, marginally more intelligent. The one outstanding personality characteristic of the talented was their self-confidence. The music group had somewhat more dominant personalities than the fine-artists, a feature possibly connected with their having been selected by performance, which would involve playing in front of an audience. As many studies into exceptional talent have found, there was a predominance of first-born and only children in this sample. The sample children, whose overall school achievement was high, were mostly well adjusted and happy.

DISCUSSION

If the important influences on these talented children have been accurately reflected in this research, then they were clearly dominated by the social and educational attitudes of the families. All the children in the sample had been exposed to the same educational provision, but only a minority had notably profited from their opportunities.

The talented children came from families which had given them particular encouragement and extra financial support, even when the parents themselves were not involved in music or fine art. Parents sometimes said that they wanted their child to make use of the opportunities which, given the chance, they too would have enjoyed. The incidental benefits of home visiting were demonstrated when a talented fine-artist took me upstairs to show me stacks of excellent drawings by both her father and older brother, kept in a drawer. Due to educational changes, only this daughter had been recognized and given the opportunity to develop her talents. In contrast, though, a boy also showed me his drawings hidden under his mattress. His father believed that boys who were artistic could not get jobs and become real men.

There were some differences in style of upbringing between the two talented groups. The musicians' parents appeared to be stricter than those of the fine-artists. For example, parents of the young fine-artists were far more ready to discuss general educational matters with their children, and to be more open and honest with them. The fine-artists had the broadest cultural and intellectual interests of all the groups and took their aesthetic support from both home and school, whereas the musicians were more dependent on home support. One could say that the

artists were emotionally more mature than the musicians. Perhaps it is in the nature of music that it calls for stricter discipline because of regular (often enforced) practice for successful progress. However, this emotional distinction between the two subjects was not on my list of priorities at the time. Looking back honestly, I may even have mentally slotted the artists' livelier lives into the old bohemian myth - which in truth did not fit very well with the lives of these primary schoolchildren, many of whom lived in the mean streets of the industrial revolution.

COMPARISONS BETWEEN CHILDREN TALENTED IN EITHER MUSIC OR FINE-ART

THE MUSICIANS

Personal:

- Better at judging and reproducing rhythm
- More dominant
- Preferred musical interests above all

Home:

- More musical instruments
- Support for extra lessons and orchestra playing
- Music considered very important
- Others in family played music
- Higher socio-economic status – newspapers, books, aspirations for child
- More discipline with children

THE FINE-ARTISTS

Personal:

- Better at reproducing figures and their relationships
- Less dominant
- Had wider cultural interests

Home:

- Strong incentive to practice art – child's paintings on display
- Support for extra lessons
- More concern for home decor with stronger use of colour and display
- Others in family had displayed art work
- Lower SES – parents' educations, newspapers, aims for child
- More democratic upbringing

BOTH TALENTED GROUPS vs CONTROLS

- Showed more ability in both areas
- More confident
- More independent interests
- More generally artistic activities in the home

Yet, it is important to recognize that the elements of both knowledge and emotion merge in creative endeavour (Boekaerts, 1991; Weisberg, 1992; Freeman, 1994) - not least the ability to cope with criticism and defer gratification in order to work further on the product. (Mischel et al., 1989)

Feelings help to select which knowledge is likely to be useful. But feelings are also themselves a form of knowledge which is at the heart of the process, because they are a way of knowing - what one feels to be right. It is in the nature of creativity to express rather than repress impulses, so that the more open-ended the teacher's guidance, and the more free the pupils are to think creatively, the deeper and thus longer-lasting the effects of their education are likely to be. There seems to be a plasticity in human imagination, which the rest of the animal world does not share. A child may pretend to be a horse, for example, but it does not happen the other way round. This playing imitating ability, a form of 'perceptual participation', brings the world within a child's mental grasp. The constant questioning and experimenting with the real world starts with early perceptual experiences, and at best continues throughout life.

In addition to the differences in the talented children's homes, though, the children themselves must have had some potential for aesthetic excellence. Both from retrospective and environmental studies, there seems to be sufficient evidence to show a family connection in musical ability at least which is in part of genetic origin. (Shuter-Dyson and Gabriel, 1981; Thompson and Plomin, 1993)

In spite of the city's generous artistic educational policy, there were schools there which had failed to produce a single child of assessable talent in either area. Whereas whole classes in one school could be found playing guitars with delight, another just a few hundred meters down the road could not produce a single recorder player or a painting of notable merit. These aesthetically impoverished schools were always in economically poor areas, where both parents and teachers tended to be dismissive of school time spent on 'inessential' activities. One headteacher said to me angrily, 'These parents have enough to do to provide their children with shoes, let alone musical instruments!' The walls of that primary school were rather bare of children's paintings and drawings too.

In most of Europe, it is not so much provision for teaching the arts which is in short supply, rather it is the will of the adults to make the most of what is available. Certainly in British primary schools the music and art are now well integrated into the national curriculum. The promotion of talent in children needs constant parental and school support, which implies good liaison, as well as specific understanding and concern by teachers for pupils who have the potential to go further than the others. (Freeman, 1995b)
It is difficult to believe that talent is definable by school catchment area.

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Joan Freeman

Joan Freeman, PhD, MEd, BSc, FBPsS, Dip Ed Guidance, C Psychol, is the author of nine books and many scientific publications on the development of human abilities to their highest levels. She has researched this area for many years, notably her British national follow-up comparison-study of gifted and non-gifted children. She received her doctorate in Child Psychology from the University of Manchester, England. Her professorship is at the University of Middlesex and she is also Honorary Lecturer at the Institute of Education, University of London. She is a Fellow of the British Psychological Society, and is Founder President of the European Council for High Ability (ECHA), an association which promotes the development of talent during the life span. Joan Freeman is married to a psychiatrist and they have four grown-up children, three boys and a girl.

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14 KEN ROBINSON

Evaluating Artists in Schools Programmes

INTRODUCTION

Artists and arts teachers now commonly work together on arts education projects. The motivations for these collaborations are both practical and conceptual, and there can be many benefits for artists, children and teachers alike. These schemes can also encounter difficulties. Prevailing priorities in state education do not give high priority to the arts: restrictions on resources, among other pressures, have increased the demands for public accountability in schools. In this paper, I will outline the range of current initiatives involving artists in schools in the United Kingdom; identify some of the factors affecting the development of these schemes, and finally raise some issues concerning their evaluation.

BACKGROUND

I will be drawing on two large-scale programmes of work in which I have been involved. The first was a major curriculum development project, which I directed between 1985 and 1989, to promote the arts in schools in England and Wales. The project arose out of the political and professional response to the report of a national committee of inquiry on *The Arts in Schools: Principles, Practice and Provision* (Robinson, 1982), which was convened by the Calouste Gulbenkian Foundation. The aim of the project was 'to give practical support to schools in improving provision for the arts in the education of all children and young people'. The project also aimed to drive the arts higher up the national agenda for education. It had the following distinctive characteristics.

1 Where many previous curriculum projects had been concerned with individual disciplines - music, drama, art or literature - this project was concerned with all of the arts. This approach was based on three premises:
a) notwithstanding their obvious differences, there are important similarities and relationships between the arts - of process and of function;
b) all of the arts face demonstrably common difficulties in schools - of status and of perception;
c) common problems can best be tackled by co-operative strategies.

The project did not offer a prescriptive definition of the arts. Conventionally schools tend to emphasise strong boundaries between disciplines. This can be part of the problem of innovation. Curriculum development should begin from the possibility of reconsidering conventional approaches and of reframing entrenched difficulties.

2 Where earlier projects tended to focus on narrow age groups, this project was concerned with the whole age range of compulsory education. State education in England and Wales is organised in two main phases: primary, from 5 to 11, and secondary, from 11 to 16. Conventionally there is little professional contact across these sectors. The project saw this as one of the constraints on an effective arts education and was concerned to look at the whole process of development from 5 to 16.

The project generated a high level of interest among schools, local education authorities, arts organisations and artists. It worked in over three hundred schools throughout England and Wales and involved many hundreds of teachers and artists, and several thousand young people. Many schools used the opportunity of the project to initiate programmes of work involving professional artists in the classroom.
The second programme of work is The Arts Education and Training Initiative (AETI) of the European Commission. I am currently preparing a report for the Commission on the socio-economic importance of the arts, a report that arises out of the experience of sixty practical projects across the European Union which have been designed to promote innovation in arts education and training.

In 1994, The Task Force, Human Resources, Education, Training and Youth, completed an analysis of participation in Community education and training programmes. The analyses show a relative under-representation of arts education and training institutes. In response, the Task Force launched The Arts Education And Training Initiative. The purpose of the initiative is to enhance the quality and quantity of co-operation in post-secondary arts education and training taking into account the specific needs and constraints of this sector. The emphasis is on education and training programmes for those aiming to be practitioners in the arts rather than on the general study of the history or theory of art forms, except where these are linked to practical education and training. The aims of the AETI are:
- to promote transnational co-operation between arts institutes in the Member States of the European Union;
- to increase the mobility of students and teaching staff in arts education and training;
- to promote the use of innovative techniques and approaches;
- to enhance the dissemination of good practice;
- to encourage international master classes and the production of special modules and courses which add a European dimension to education and training in the arts;
- to support activities which through European co-operation improve the quality of education and training in arts education throughout the European Union.

In 1994 the Commission issued a call for projects in six main fields: audio visual, dance, design, fine arts, music, theatre. Interdisciplinary projects were also encouraged. In response to the call for projects, over 300 applications were submitted to the Task Force of which 60 received funding. A number of the projects provide evidence of the same pattern of issues affecting the arts and

education that are characteristic of work and experience in the United Kingdom.

ARTISTS IN SCHOOLS: TYPES OF PROGRAMME

There is a long history in the United Kingdom of artists working with education and there has been a considerable increase of involvement during the past 25 years. There are four main types of programme:

Arts in education companies

These are professional companies - usually theatre or dance - which devise programmes on specific themes or issues and tour them to schools. Typically, these programmes include performances, follow-up workshops and teachers' materials for further work.[1]

Artists in education programmes

There are now many schemes that involve practising artists - musicians, dancers, painters, writers and so on - in educational initiatives through residencies, placements, one-off or recurring projects. These artists are not principally educators nor is education their main form of work. Typically, these programmes range from one or half-day visits to residencies or placements lasting several months. Most of the arts funding agencies in the UK now keep registers of artists who are available for workshops or residencies in their own areas of specialism.[2]

Arts education liaison schemes

Many arts companies - orchestras, theatres, dance companies, museums - operate education or 'outreach' programmes. The aims of these programmes include fostering wider knowledge of the work of the company, deepening understanding of its work and the development of exhibitions and repertoire as a resource to schools. All of these programmes have audience development as an underlying purpose. Many companies employ education officers, some have education departments. Most conduct workshops and publish materials related to their current programmes of work.

Arts centres

Throughout the United Kingdom that are small and large arts centres with facilities for two or more art forms. Typically these are performance and exhibition venues serving particular communities with programmes of workshops and other activities for schools and other community groups.

There has been an overall increase in some areas of this work in the last ten years or so. There has also been a shift in the national pattern of activity.

A CHANGING CLIMATE

There are financial incentives for artists to become more involved in education. For arts companies, the development of an education strategy has become a condition of funding by the main arts support agencies. There have also been cuts in national funding for the arts: work in schools can be a useful source of additional income.

But this is not just a matter of funding. There has been a growing recognition among arts organisations that they need more than an artistic policy. They need a cultural policy which relates artistic policy to strategies for engaging the community in their work. Education is a key part of such strategies.

The pattern of work has also been deeply affected by the implementation of the 1988 Education Reform Act. The Act has transformed the structure and the ethos of state education in the United Kingdom. The four pillars of the act are:
- The National Curriculum, which specifies the content and standards of education;
- Local Management of Schools (LMS), which devolves over 80 percent of local education authority funding to school governing bodies;
- Opting Out, which provides for individual schools to apply for direct funding from central government;
- Parental Choice, allowing parents selection among state schools.

The reforms in the United Kingdom are typical of changes taking place in other national systems of education.[3] Emerging from the political, economic, technological and cultural challenges they face, there are eight general trends in educational development which are evident to greater or lesser extents in many European countries.

Central direction
The political significance of education is resulting in a general increase in centralised direction and control of aims and content. In continental Europe, nationally prescribed curricula are not new. Several countries outside the EC, mainly English speaking, are also moving towards national goals and targets for educational attainment. The National Curriculum in the U.K. is a marked example. Although the federal structure, and its scale, make a similar national curriculum impractical, the US is also moving to more prescriptive forms of education through setting voluntary national standards in agreed core subjects.

Local management
The concentration of control in education is not necessarily into single national ministries. These centralist tendencies are often linked to the devolution of resources and responsibilities to local levels. There is also a growth in the numbers of functional agencies, '... which, enlisting modern communications technology, are able to aspire to, if not always maintain, close system-wide control or surveillance ... [There] is in effect a redistribution of functions and authority in which both central agencies and the field play new roles.' (Skilbeck, 1989, p. 14)

Needs analysis
There is a growing emphasis on identifying more clearly the skills and qualities that are needed in industry and commerce. In many countries there has been an historical divide between the institutions and professions of education and those of commerce and industry. As part of the process of relating education more closely to the changing economic needs, there has been a growing emphasis in educational

policy statements on defining the specific and generic skills needed in industry and commerce, and on ways of promoting their development.

Education and training

There is a tendency to redefine and distinguish the roles of schools in relation to general education and vocational training. During the 1970s and 1980s the main reaction to high unemployment in Europe, particularly youth unemployment, was to emphasis the vocational elements in secondary education. (Jones H. C., 1992) The emergent view now is that the roles of schools are to provide young people with a broad-based education as a basis for more specialist training provided by other agencies.

Partnership and co-operation

There is a resultant recognition that education is a co-operative enterprise, involving a wide range of agencies and interests. This trend has resulted in many countries in the development of closer working partnerships between schools, training institutions, industry and commerce.

Differentiation

There is a tendency towards greater differentiation of the curriculum, particular in the upper secondary school, to allow for more specialisation by pupils according to their interests and expectations. In a number of countries, there are clear alternate routes for pupils who seem destined for further academic work in higher education, and for those more likely to move directly towards employment.

New qualifications

There is a growing range of types of examination and qualification. Historically in some countries, school leaving examinations have been dominated by the needs of university entrance. These qualifications have been seen as the 'gold standard' of school success. Vocationally-oriented, qualifications have often been seen as a lower currency. There are initiatives to promote new forms of qualification, with a vocational bias, to be held in the same esteem as traditional academic qualifications.

Continuing education and training

There is a widespread recognition that rapid and continuous social change needs to be met by continuing opportunities for education, training and retraining. The traditional conception that education should be provided once, in youth, is being replaced by the idea of education as a lifelong process, and as a recurrent entitlement.

All of these developments are framed by two general political requirements: first, a progressive requirement to reduce the demand on fiscal resources - to do more for less, as many educators see it; second, an increasing demand for accountability - by the education professions to the centre. The dynamics of European education are becoming ever more complex as this matrix of political, economic, technological

and cultural issues becomes increasingly intertwined.

IMPLICATIONS FOR ARTS EDUCATION

Undoubtedly there have been some benefits from the reforms in the United Kingdom. The majority of schools probably now see the National Curriculum as a valuable framework which promotes greater coherence and continuity in children's education. Some schools have gained financially from the devolution of resources and welcome the freedom it allows to set their own spending priorities. From a national arts perspective there have been problems.

As in many other national systems, the arts have relatively low status in the National Curriculum. It comprises three core subjects - English, mathematics and science; and seven foundation subjects - history, geography, technology, modern languages, art, music and physical education. Schools have complained since 1988 that the National Curriculum was too complex and too demanding. Responding to these pressures, in 1994, the government published a comprehensive review of the National Curriculum. (Dearing, 1994)
The Dearing Review reduced the statutory requirements of the National Curriculum and simplified the statements of content and attainment. While confirming the centrality of the core subjects, the Review further reduced the requirements for the arts and made them optional in the upper secondary school. The provisions of the National Curriculum have interacted with those of LMS to have serious effects on the resourcing of some artists in education programmes.

In a recent report for The Royal Society of Arts, Rick Rogers (1995) documents the impact of the legislation since 1988 on the arts in schools. He concludes that the quality and extent of arts education has been significantly affected, and that the local advisory and support services that are needed to develop the arts in education have been seriously reduced. Although some schools have gained from LMS, others have less money available than under the old system. There is an additional problem of fragmentation. Formerly, local education authorities provided or subsidised many central services for schools. These included advisory support in the arts, central instrumental services, gallery visits, museum services and so on. Under the new arrangements schools have to arrange these services individually, or to develop new systems on a consortium basis. A number of specialist arts education companies, including Theatre-in-Education, which used to be largely funded by the local authorities have now disappeared. Why is is that the arts have suffered from these reforms in ways that other areas of the curriculum, notably science and technology, have not?

REASONS FOR REFORM

The education reforms in the United Kingdom, as elsewhere in the developed world, are being driven by three related political agenda.

Standards of attainment

There is a deep-seated concern in many countries with raising standards of

attainment in education at all levels. A concern with standards of achievement is a necessary part of all educational planning. The difficulty for the arts is that debates about standards tend to be linked specifically to academic standards. It is rare to hear politicians worry about falling standards in the arts. This is because standards are taken to mean standards of intelligence and the arts are not always associated, in the political mind, with the intellectual development of young people.

Economic competitiveness

All countries recognize state education as a major investment in economic development. Difficulties arise for the arts when general education is confused in this process with vocational training. The arts suffer on this assumption because they are not often seen as directly relevant to young people's work prospects nor to economic development. At best they are judged to be important only for the young people who may be planning careers in the arts, and this may seem a small minority. For this reason, the arts often remain optional in the upper secondary school, while the sciences and technology, which are associated with economic development, are compulsory.

Cultural identity

Formal education is one of the most sustained processes through which young people are initiated into the values and conventions of the dominant social culture. In many countries, the roles of education in promoting social and moral values are being made more explicit. The arts are seen as central to these processes. Often, it is learning about the arts, rather than the creative practice of them which is given priority, with an emphasis is on asserting traditional cultural values, and a sense of national identity.

Resources

One of the effects of recession has been to increase the demands for accountability and for evidence of cost-effectiveness in educational spending. In these circumstances, pressures have increased for schools to concentrate on 'the basics' in education and to reduce commitments in optional areas. Schools with devolved budgets which are trying to balance the books are bound to look first at areas of discretionary spending. In this context, the nature of the compulsory curriculum is of considerable importance in determing priorities. The relatively low status of the arts is reflected in the allocation of resources.

In these difficult circumstances, it is essential to be clear about the reasons for involving artists in schools, the principles that these schemes fulfill in education and about related principles of evaluation.

THE ROLES OF ARTISTS IN EDUCATION

One of the reasons for the growth of interest in artists and education programmes over the past 25 years is that there has been a shift in the dominant models of practice in arts education. For many years, the practice of the arts in schools was based on conceptions of self-expression and personal creativity. Since the primary

purpose of arts education was to facilitate children's own creative production, it was not seen as necessary for children to work with practising artists. To some extent, teaching children about the arts or engaging them in the work of adult artists was seen as a form of cultural imposition. Increasingly, and especially over the past decade, there has been a recognition of the importance of relating personal practice in the arts to a knowledge of cultural contexts and traditions: a recognition that all artists function within, are affected by, and help to shape, the social culture.

Consequently, the reports of The Arts in Schools Project (Robinson, 1990) emphasize the importance of the two main modes of engagement in the arts: making, the creative production of original works; and appraising the responsive engagement with existing work. Both of these modes are essential to a balanced arts education for all children, and they are mutually enriching. There are two main areas of development for pupils within each mode.

Creative development
Arts education should promote the abilities of children to use the arts to formulate and express their own visions and conceptions; to see the arts not only as ways of expressing, but of having ideas.

Technical development
Creative ability in the arts as elsewhere is facilitated by the acquisition of skills and techniques - through increasing control over the media and materials that are used to fashion the work.

Critical response
Arts education should promote the abilities of children to engage with existing works in the arts, to appreciate formal qualities and ways in which the meanings of works are fashioned.

Contextual knowledge
Children's responses to the arts can be enhanced by deepening their knowledge of the conventions, traditions and contexts in which they were produced. Arts education should promote children's knowledge in these areas so as to enrich their experience in, and understanding of, the arts as a whole.

Although there are some differences in the language used, the same principles underpin the statutory orders for the various arts disciplines in the National Curriculum. It is within this reformation of the ideologies of arts education that engagement with the work of practising artists has come to be seen as important and relevant for children and young people.

MUTUAL BENEFITS
There are many mutual benefits for children, teachers and artists in joint programmes of work. Children benefit from the contact with practising artists in terms

of learning skills and techniques and also through absorbing the seriousness and enthusiasm with which dedicated adult artists approach their work. These benefits are in addition to the insights and knowledge they gain from contact with the work itself. Artists commonly comment on the ways in which their own work is enriched by creative contact with children and teachers. (Sharp, C. and Dust, K., 1990) These programmes can be stimulating sources of new ideas, feedback and stimulation which artists working in their ordinary contexts do not experience. For teachers there are similar professional benefits. Additionally the experience of an artist working in the school can provide many resources for preparatory and developmental work before and after the visit. In a fundamental way, these contacts can help to dissolve the strong institutional boundaries which separate children's experience of education from the social culture beyond the school gates.

BREAKING THE MOULD

One of the problems in the National Curriculum is the limited structure it provides for the arts. An obvious first step in planning an arts curriculum might be to ask, what are the arts? What are the different disciplines, and how many are there? How the arts are defined and their importance and relative status conceived, is of fundamental significance for provision in schools. These questions are not commonly asked in education. Usually it is taken for granted in schools that there are five art forms: music, drama, art, dance and literature. The National Curriculum takes this view. Within this structure drama is part of English teaching and dance a part of physical education. Outside schools this is a hopelessly inadequate conception of the arts. The following definition, for example, comes from the United States National Foundation for the Arts and Humanities:
'The term the arts includes but is not limited to music, instrumental and vocal, dance, drama, folk arts, architecture and allied fields, painting, sculpture, photography, graphic and craft arts, industrial design, costume and fashion design, motion pictures, television, radio, tape and sound recording, the arts related to the presentation, performance, execution and exhibition of such major art forms and the study an application of the arts to the human environment.' (Quoted in Robinson, 1990, p. 10)

Written thirteen years ago this definition is already out of date. It takes no account of developments in the last decade in information technologies, digital sound and image processing nor of virtual reality systems. The cultural implications of these new technologies are enormous. Significantly many innovations in the applications of these technologies are being accomplished by visual artists working alongside, and increasingly as, technologists. These relationships demonstrate the dynamic interactions between the arts and technology in the social culture. In education these distinctions tend to be reinforced and institutionalized. Why?

Any curriculum has two distinct purposes. The first is epistemological: it is a way of categorising fields of knowledge and identifying where the boundaries are. For the most part this is taken to be the only function of a curriculum. But a curriculum has a second and, to some extent, more determining managerial function: it is a

framework for organising time and resources for teaching. Both of these functions are necessary, but in practice the managerial functions of the curriculum too readily come to dominate the epistemological roles, reinforcing a limited or rigid view of knowledge.

One of the reasons that provision for the arts in the National Curriculum is so limited is that the costs of making full provision - of training adequate numbers of dance teachers, for example, or of providing compulsory instrumental tuition - were simply too high. These are managerial decisions, but they were encoded in epistemological rationalizations: dance, it was argued, is really a branch of physical education; instrumental tuition is really only necessary for the talented and gifted.

A curriculum also fulfills professional and political purposes. Professional identities in education are closely related to subjects. During the formative debates on the National Curriculum the art and music lobbies largely accepted the National Curriculum framework for the arts. The debate tended to focus on the relative importance of these different disciplines: on whether art was more or less important than drama or dance.

For all of these reasons, arts teachers tend to work within conventional boundaries between disciplines. Outside schools these divisions are less functional. When professional artists work in schools they can interrupt established ways of thinking about the arts and institutional routines. At a practical level, this may be because they are used to different rhythms of work than those that govern the school day. But there can also be deeper conceptual tensions. Educational distinctions between music and literature may not concern an opera librettist whose concern is with both, or rather with something that is neither one nor the other. One of the discomforts and the benefits for schools of working with professional artists is that they can interrupt some of the conceptions of the arts that schools take for granted.

EVALUATION AND ASSESSMENT

Given the increasing complexities of education, and the pressures of accountability, how are these schemes to be evaluated? There is a conventional, and important distinction between evaluation and assessment. Assessment generally refers to the process of making judgments about students' attainments. A crucial point is that such judgments are necessarily made in relation to the opportunities for learning that students are given. Evaluation is generally taken to be the process of making judgments about the quality of those opportunities. Evaluation is concerned with making judgments not only about pupils' learning but about the quality of the educational programmes in which they participate. Evaluation can be difficult for the arts because of the imposing influence of public forms of accountability and of the objectives model of evaluation.[4]

The objectives model proposes three stages in an educational programme: setting objectives, implementation, evaluation. This third phase is seen largely as a process

of judging to what extent the objectives have been achieved. In many ways this is an attractive model. It exactly suits the needs of some enterprises. If a manufacturer aims to produce five hundred units of a product, the evaluation will be to count them at the end, and to modify the process or the target accordingly. There is an attractive logic to this. Nevertheless there are some significant difficulties in its application to education in general and to arts education in particular.
The principal purpose of evaluation is to establish the value of a programme. The difficulty is that an educational programme involving many different participants is likely to have different values for each of them. Each participant may attach different values to different aspects of the experience. The objectives model, with its linear logic cannot always cope adequately with this diversity of responses and outcomes. Moreover, in the arts in particular, what a programme actually achieves may be different from, and possibly more valuable than, what was intended at the outset. Artists and teachers may set out with clear objectives at the beginning of a programme, and then modify or abandon them in response to more interesting opportunities that arise along the way. If an evaluation process sets out only to establish whether the original objectives were achieved it may miss the real value of what actually went on.

In recognition of these complexities, modes of evaluation have evolved which aim to give a fuller and more textured account of the nature of educational programmes. These approaches are variously described as illuminative, descriptive, or naturalistic.[5] They have a number of common characteristics:
- They take account of responses of all those with an interest in the programme - the team, the children, the teacher and the funders - and of their different values.
- They are naturalistic: that is, they seek to establish the actual effects of the programme rather than the intended effects.
- They are adaptable in that the design of the evaluation may change with changes in the programme.
- They are not restricted to test data. Although some statistical approaches may be used, the results are just one element in the evaluation.
- They are descriptive and discursive and aim to report on the flavour of the programme as well as on its effects.
- They look at the process of the work rather than just at its intended outcomes or products.
- They evaluate the objectives along with everything else. (Hamilton, 1976, p. 39, quoted in Robinson, 1993, p. 258)

THE ACTION AND THE ACT OF EVALUATION

There is a difference between the action of evaluation on the one hand and the act of evaluation on the other. By the action of evaluation I mean, '... the process of gathering, recording and organizing information about the working of the programme. It is a kind of trawling for information in the flow of the programmes activity. Acts of evaluation are the judgments made in the light of this information. Problems in evaluation tend to arise when acts of evaluation are unsupported or impressionistic: that is, when the action of evaluation is narrowly focused and

random. The action of evaluation must be systematic.' (Robinson, 1993, p. 258)

The process of evaluation is to gather information, data and material about the operation and processes of the programme in question. The ultimate purpose of evaluation is facilitate informed judgments on the basis of this data.

Naturalistic and descriptive approaches tend to use ethnographic methods and qualitative methods as well as quantitative data, and have evolved with the development of those approaches in the social sciences more generally.[6] The emphasis is on close description to evoke the nature of the events in terms of the lived experience of the participants. In general, these approaches to evaluation are fully consistent with the fundamental principles of arts education. A number of areas of central importance to the arts do not lend themselves to summary by grades, percentages, or numbers. The qualities of experience they promote are complex and often highly particular for each individual. There are some problems too.

These processes can be very time intensive. Although the accounts they provide may be detailed and closely observed, they may not lead to generalisable conclusions. Public demands of accountability often call for generalisations about whether particular approaches work or not. Nonetheless, it is essential that these approaches should be further developed. This is necessary so that the values of artists in schools schemes can be explicated in terms that are relevant to them, rather than their effects being oversimplified, or distorted by paradigms of accountability that are inherently inappropriate.

FUTURE NEEDS

There is a need for other developments in research in arts education. In the welcome expansion of naturalistic and descriptive approaches to evaluation in particular, there has been a relative neglect lack of quantitative and statistical research in arts education in general. There is little long-term research on patterns of development over a number of years. Descriptive approaches have a great deal to offer to understanding educational processes. So do quantitative and statistical methods. In the next generation of research in arts education there is a need to achieve a new balance between quantitative and qualitative research methods which will yield ever more sophisticated actions of evaluation and result in better founded judgments about the effects of these programmes.

It is increasingly important to gather such evidence. The ideological threats to the arts in education are considerable. Academicism and managerialism in particular are inherently hostile to some of the broader qualities that arts educators aim to promote. It is of growing importance that arts educators should think across old disciplinary boundaries both within the arts and between the arts and other intellectual domains in providing a balanced and progressive arts education for all children and young people.

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Notes

1. For a discussion of the development and nature of Theatre-in-Education see Jackson, 1993.

2. For a full discussion of the range of artists in schools programmes and of issues and approaches to evaluation, see Sharp and Dust, 1990.

3. For a detailed discussion of international trends and developments in state education see Skilbeck, 1989.

4. For a fuller discussion of these developments, see Robinson, 1993.

5. See, for example, Kushner, 1991.

6. See, for example, Simon, 1987.

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Ken Robinson

Ken Robinson, BEd, PhD, FRSA, is Professor of Arts Education at the University of Warwick, and Chairman of the National Foundation for Arts Education. He was principal author of The Arts in Schools, Principles, Practice and Provision, published in 1982 by the Calouste Gulbenkian Foundation. This is now established as a leading text on arts education in Britain, and increasingly overseas. He was editor of The Arts and Higher Education, published in 1984 for Gulbenkian/Leverhulme, and was a principal writer of the consultative report for the Department of Education and Science on The Arts in Further Education, published in 1986.

From 1985-1989 he was director of The Arts in Schools Project - a major national initiative to develop the arts in primary and secondary schools in England and Wales. The project was jointly funded by the National Curriculum Council (NCC) and the local education authorities (LEAs), and worked closely with the Arts Council of Great Britain, the Regional Arts Associations, the Crafts Council and the National Foundation for Educational Research.

BEST COPY AVAILABLE

15 GERT-JAN DE HAAS

Music in Perspective

At the Merwebolder, a residential home for the mentally handicapped, Peter plays the piano as if there is nothing wrong with him. And maybe, in a sense, there isn't. It is just that when we talk, he doesn't understand what we say. But then again, we do not understand a lot of what he says. Not one of us of us seems to have a problem with the fact that there is a gap between his knowledge of communication and ours. Somewhere in history our ways parted and we just won't look back.

The human mind is a fantastic phenomenon. We fail to understand how it works, but even so! An unlimited plasticity coupled to an ability to apply structure. A system controlling survival by nerves, blood vessels, muscles, etcetera.

The number of functions carried out by our brain are many and still there are many more to come. The human being is a master in giving independence to skills and knowledge. Something functions within a certain context and we lift it out of that context and use it to achieve another goal, or make it a goal in itself. The first we call cognition, the latter creativity. Cognition is to apply a certain concept to solve a problem. Creativity is taking that concept out of its original context and using it in a new one, thus making new concepts for the solution of problems.

Music as we know it, came into existence in the same way. About 100,000 years ago, during the mid-paleolithicum the first musical instruments were used. These were tubes, used as whistles. Of course, long before that man imitated sounds. We think the chameleon is a wondrous animal. This so called homo sapiens neandertalis, as we now call him, seems however to be able to imitate others, including other humans, in an even more extraordinary way. Would you be very surprised if at least some of them shared their capacity to imitate with others, whilst sitting round the fire (1,500,000 years ago)? Sound for sound's sake.

Man evolved, together with his primarily auditory music. Man stamps on the ground like a horse. When doing this he distinguishes between the sound of the stallion of the herd, stamping with all four legs at once thus making the herd stand still and the sound made by the mare, the quiet pace leading the herd to a safer place. Man can fulfill both these roles. He sings like a bird, screams like a monkey and miaows like a cat. Moreover, he also develops tools to imitate. And just as with his voice he can extend his possibilities. He can hit, rub, pluck and blow. He can even imitate other people! Man evolved, and so did his skill to imitate through auditory waves and sense of touch. Just as he did with many other things he made

them independent. Nowadays the concepts we made for music have a strong influence on our lives. Musical laws determine our behaviour in the concert hall as well as when we open the door of our car without switching off the lights. The cultural evolution brought to us an independent form of music which has penetrated into all facets of our existence.

For this reason, the fact that music is a reproduction of the phylogenesis and ontogenesis of man, music presents the possibility to study, describe and change human behaviour. Cognition, emotion, creativity, social and kinetic skills all have their musical entity.

Because right from birth and, strictly speaking, from before birth man makes use of this musical material, it is possible to describe the general development of man in terms of music. Of special interest to me is the fact that besides the normal developmental cycle we can also describe abnormal development. A child with a cognitive age of five, but a social-emotional age of six months has a different preference for music than we expect from a 5 year-old. This deviant development is clearly visible with the autistic syndrome.

In 1943, Leo Kanner, a physician born in Austria and gone to America in the twenties, described eleven children in his now world-famous article *Autistic Disturbances of Affective Contact*. The clinical picture is different from anything he has seen before. One year later he describes their clinical picture as 'Early Infantile Autism'. Nowadays autism is a well-known syndrome in psychiatry. Specialists now regard it as a neuropsychiatric syndrome which has a pervasive influence on a person's functioning. The most important features are the lacking or deviant contact (the autism), the lacking or deviant development of language and the lacking or deviant emotional development.

In practice this means that we are dealing with people with whom it is extremely difficult to make contact, and communication progresses only very slowly. The problems increase if we take into account the fact that, because of their communicative and contact problems, these people function far beneath their potential. Moreover, besides autism there may also be a mental handicap and last but not least autistic people relatively suffer from a lot of psychic problems. A triple handicap is not a great exception. Up to now there is no cure for autism. This means that we concentrate on the optimization of the development of people with autism. During this - lifelong - process we have to cope with the autism itself as well as with the severe communicative problems resulting from the syndrome. Music can be of use here.

The brain processes sensory information in two ways. Reafferent processing is involved in the connection between action and a person's own movement (also described as feedback). An example would be the experience of one's own footstep, but also the temporal experience of walking. And then there is ex-afferent information processing, the processing of environmental information. This process

adjusts us for example to walk in time to certain music (feed-forward). It creates expectations. Both ways of information processing give structure to experience. A certain expectation is created on the ground of the processing of sensory information. This expectation, being non-verbal, is much more accessible than a verbal interaction to people who have problems in expressing themselves verbally.

This interaction pulse, the same one I mentioned at the beginning of my text can be manipulated on a flowing scale. It may go faster, slow down, become louder or softer, expectations can be fulfilled and expectations can be frustrated. Apart from all this, this pulse can also become the carrier of other signals. The signals that tell a person for example if information means danger, or affection can become accessible to a person because of the ability to focus his attention. This focusing is possible because of the pulse. An autistic person may totally ignore a certain sound and a few moments later be scared to death by that same sound because before it just didn't exist for him. This is something we all know from searching for scissors while holding them in our hand. At that particular moment we just can't focus the way we want to which makes the existence of the scissors unaccessible to our experience. This, of course, is different from not being able to find them because we can't recall where we left them.

So, through music we can transport a signal, but also induce behaviour. Through music you can communicate whereas verbally you cannot. You can moreover induce behaviour which is emotional, social, cognitive, kinetic or a combination of these possibilities.

As an example of the different ways of experiencing music I would like to present to you the case of a 12 year-old boy. The boy is diagnosed as autistic. He is a very good musician, although he has never had any lessons. John, as I will call him, has developed cognitively much better than he has socially and emotionally. The request for music therapy is based on his problems with interacting with other people and his aggressive attitude towards many people.

First we see John while playing the organ. Although he is absolutely fascinated by the instrument it clearly appeals to his cognition. The many buttons and settings give him the opportunity to carry out al sorts of technical skills. He is not interested in his social environment. Interaction proceeds between John and the instrument. Next I introduce to John another instrument, a conga. This instrument is much more primitive. It has to be played by hand and there is a direct connection between action and reaction. The instrument processes movement into sound in a very direct way. Now the boy gives us a totally different impression. Even before I pick up an instrument myself he has a totally different expression on his face. He is clearly aware of his social environment and obviously has a lot of pleasure in what he is doing. John starts to sing and without making any verbal agreements we start to interact the moment we both play. In turn we take the lead and try to impress the other with our percussion skills. Clearly this instrument appeals to the social and emotional capacities of the boy, capacities he does possess but hardly ever uses

because he has severe problems in gaining access to them. Also he is mostly approached in a cognitive way. Music can be of assistance to develop that part of him which is so far behind in development compared to his other abilities. Furthermore music is able to get the message through to him and to help him to focus his attention. Through music I can communicate with John and help him to get some balance in his development.

Many people have been and are occupied with the emotional component of music. As I stated earlier, music is able to describe and appeal to all facets of human development. An example of another field in which music therapy is applied successfully is physical therapy. At the institute at which I work we started to give musical accompaniment to multiple handicapped people during physical therapy about a year and a half ago. Skipping the technical terms of the treatment it comes down to - again - the connection between movement and expectation. The same principles as stated above are at work here. The ex-afferent sensory information gives, without the need for verbal or cognitive instruction, a certain expectation for the movements to be made. Incidentally, the person under treatment is not the only one to benefit from the music. The therapist is supported just as much by the music. The musical impact on the patient is therefore supported by the movements of the therapist because of their synchronousness with the music. This makes the treatment easier for therapist and patient and makes it possible to treat more effectively.

During this lecture I have stated that music is nothing but man himself. I have illustrated why and that there is nothing secret about music. The last point, especially the last is of great importance to me because we must start to use other explanations for the usefulness of music. It is not a divine power used to get into the underworld by Orpheus to get back Euredice. Music is an art, but if we want to use it in therapy we need the facts too.

Gert-Jan de Haas

In 1991 Gert-Jan Haas graduated from the Sweelinck Conservatorium in Amsterdam as teacher of classical and electric guitar with music therapy as a subsidiary subject. He works and is employed as a music therapist at the 'Merwebolder', an institution which accommodates mentally and multiple handicapped people. His field of expertise involves supervision of mentally handicapped who are autistic and/or have other psychological disorders. He is coordinator of the Autism team at the Merwebolder. At the moment Gert-Jan de Haas is working on his thesis in view of his psychology study at the State University of Leiden and the University of Amsterdam. His project involves the psychotherapeutic aspects of music development. In addition, he set up his own agency specialised in the scientific applications of music psychology.

16 KONRAD JENTZSCH

Arts Education Programmes in Germany

The education of arts in the Federal Republic of Germany needn't prove itself - in opposite to German industrial products. Arts education needn't be exported and rationalizations are nothing to worry about. Due to that general feeling the way of arts education can either go on as it is or it can adapt itself to new requirements or to new fashions, and individually. Looked at from this point of view there are as many programmes of arts education in Germany as there are art teachers.

Here I speak about school programmes and in particular about arts education programmes that include in Germany the 'visual arts', although music, dancing, acting and media are also part of the arts.
In German schools music is an independent subject, as well as arts education. Dancing is considered to be part of physical education, but often ignored. Acting is usually taught in voluntary study groups whereas media are part of the subjects German, arts, music and political/social education.

Whatever a teacher is doing, he would be able to answer any question concerning the usefulness of arts education - and any of his answers would be covered by the state frameworks.
The German art teachers do like programmes: programmes with far reaching reasons for anything fine, conceivable and desirable. Programmes with ambitious aims and a wide range for possible decisions - even under state supervision.
In accordance with the constitution of the Federal Republic of Germany, the whole school system is under state control.
For the reasons of bad experiences and the abuse of governmental power, the policy of education has been decentralized when the Federal Republic of Germany was founded in 1947. Since that year political decisions concerning education are taken by every single state, sixteen altogether now after the downfall of the wall. However, concerning the education of arts, there are not only sixteen state programmes, but even 144. Thus it is difficult to keep the overall view and to recognize the differences and similarities between the various programmes. Even the basic structure of the German educational system can only be described in a rough way.
I try to explain it in the diagram on page 185.

- The compulsory school attendance for all children begins at the age of six. As a rule the children visit primary schools for four, sometimes even for six years.

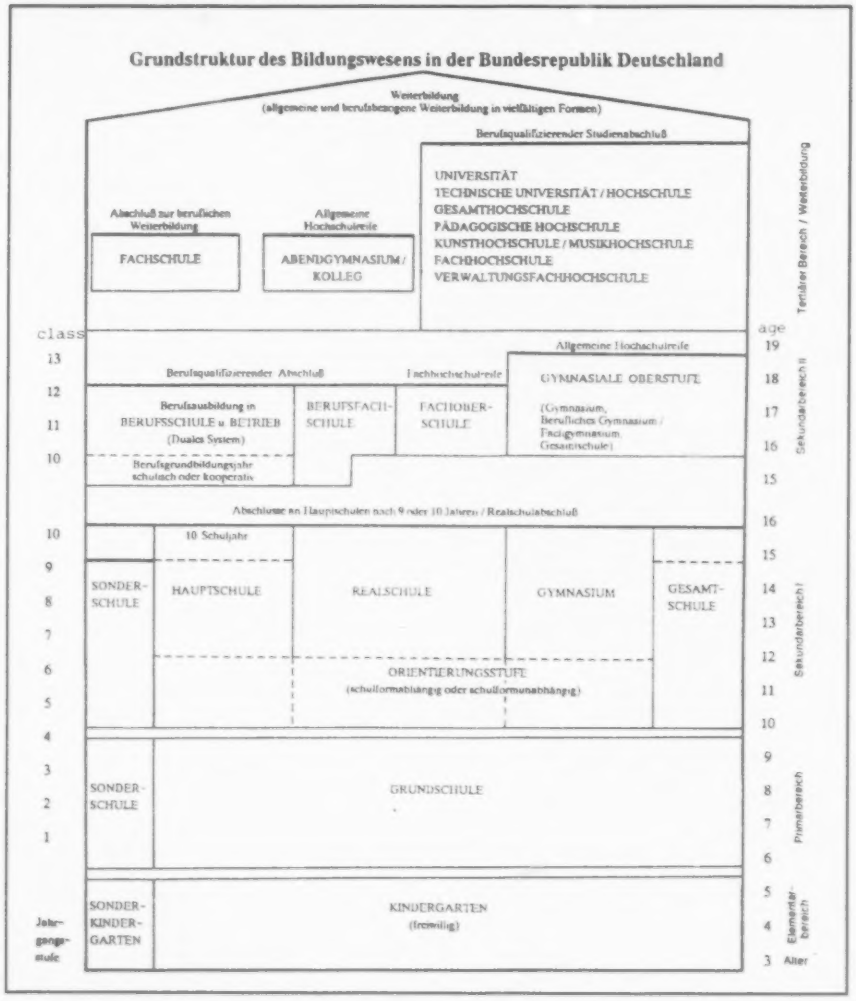

Figure 1. The educational system in Germany.

The period of the 'full-time' compulsory school attendance is nine years, in four states even ten years. The following 'part-time' compulsory school attendance for vocational schools and technical colleges is three years.

- The education of the handicapped takes place in special schools depending on the kind of handicap (mostly separated from the non-handicapped). These schools, in Germany called 'Sonderschulen', have special programmes of arts education.

- The education in the 'middle school', which is called in Germany 'Sekundarstufe 1', varies in the different kinds of schools:
1 the German 'Hauptschule' is a kind of main school, that goes up to the 9th class (its graduates often decide for more simple occupations);
2 the German 'Realschule', is a secondary modern school, which is the same as the British ordinary level (its graduates are allowed to visit secondary vocational schools; with a more qualified graduation even grammar schools with the aim to reach the advanced level);

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3 the German 'Gymnasium' is equivalent to the British grammar school (right from the beginning the pupils strive for the advanced level, the entitlement to visit universities and colleges);
4 the German 'Gesamtschule' is a comprehensive school (a type of school that has come into existence as a result of the criticism of the organization of the threefold structured school system, which was said to force very early decisions of teachers and parents about a pupil's school career and possible opportunities.
In some states there is in addition the 'Orientierungsstufe' for the 5th and 6th class or combinations between the 'Hauptschule' and 'Realschule', called 'Regelschule' beside the 'Gymnasium'.

- The German 'Sekundarstufe 2' describes the 11th up to the 13th class. It includes pupils of general education schools as well as pupils of vocational schools, where no arts education is taught.

It depends on the constitution of every single state in Germany, what kind of teacher is related to the different type of school. There are:
- primary school teachers
- primary school teachers who also teach in classes up to the 10th class
- teachers for all or just for special types of school up to the 10th class
- grammar school teachers and those who only teach in the upper classes (Sekundarstufe 2)
- teachers for the special education of the handicapped

These different kind of teachers are distinguished by a different length of their university education (three to six years, plus 18-24 months student teaching), by the payment and the number of lessons they have to teach per week (23-30). Every teacher has to study the theory of education, psychology, and at least another two main subjects.
Due to this there are no teachers in German schools, who only teach arts (exception: art teachers at grammar schools in Bavaria and some older teachers).

Because of the confusion about all the different schools and arts education programmes, I am going to explain some recent programmes with the following examples:

1 HESSEN

Framework for the primary school (draft 1993)
After an introduction basic aspects of orientation are given in part A, among which there is a description of the primary school as a place for to gain experiences:
1 experience in language
2 social experience
3 intercultural experience
4 experience in senses and values
5 aesthetic experience

6 experiences made by playing and movement
7 experiences with space and time
8 experiences with quantity, size, and forms of structure
9 experiences with nature and technology
10 experiences with work and consumption

School as a place for experiences is an important keyword for the ongoing reformation of the German school system (school is not supposed any longer to be a place for the achievement of knowledge alone).

I wanted to show especially how aesthetic experiences have been taken into account, by considering the following guidelines.
The human being gets the entry into the world by what was called 'Aisthesis' in Greece, the sensual perception. By dealing with aesthetic objects and by creating something oneself the ability to think, to feel and to act can equally be developed. This is a requirement for the development of imagination for creative design. Aesthetic experiences can be gained by the encounter with fine arts, music, physical movement, the perception of nature in everyday life, at home and at work.
For the individual self-perception is of main importance. To find one's own identity, perception, expression and the knowledge about one's personal effect have to be developed.

In this context aesthetic experience is a necessary requirement for children to develop their own concepts to see and understand the surrounding world. Assessing and evaluating special phenomena becomes more difficult by the one-sided overfloating of optical and accustic stimuli in our times.
All the more it is the school's responsibility to let children discover and develop their own ability of perception and creation. This task is taken into consideration, if the school:
- makes possible the sensorial-acting entry into the material and social environment
- encourages children to express themselves in an authentic way;
- provides experiences with curiosity, fascination, zest of life and moments to enjoy;
- shows the contrast between the real world and its representation in media;
- initiates pictures, images symbols and pieces of arts to make the pupils think about themselves;
- allows and supports experiences in playing and physical movement in various ways.
There are quite a lot of links to everyday life in school.

In part B of the framework for the primary school there are different programmes for subjects and teaching fields: religious education, German, 'Sachunterricht' (a subject which is a combination of natural sciences), mathematics, physical education and the aesthetic education by arts and music.

The programme of arts education starts with explanations for the general aims:

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- to increase and to educate the sensorial ability of perception and making experiences;
- to support the joy of self-determinated creating and to arouse the desire of aesthetic acting;
- to occupy oneself with art and culture;
- media education.

Finally there are explanations concerning didactical basic ideas and general hints, how to assess a student's accomplishment (in order to ascertain how effective a lesson has been). All arts education programmes in Germany include such guidelines.

During the first two school years pupils only get an assessment of their overall performance, but no grades. From the 3rd up to the 11th class pupils get reports every half year. The grades start with 1 (the best grade) and go up to 6 (the worst grade). In the 12th and 13th class students are assessed by a point scale starting at 0 points and ending at 15 points (best rating).

In another chapter there is a commented list of the professional aims:
- perception and experiment
- drawing
- painting
- writing
- printing
- collage and montage
- needlework (in other states, e.g. in Lower-Saxony and in Schleswig-Holstein this is even a special subject)
- sculpturing
- expressive playing and acting (that means: scenic playing with masks, dolls, shadows and dressing or making up)
- general dealing with arts

Furthermore there are seven topics, which are looked upon as necessary for aesthetic education:
- myself and others
- eating/drinking
- clothes/dressing up/decorations
- playing/toys
- stories/fairy tales/comics
- media
- nature and environment

Every single aspect is commented on and completed by possible relations to arts and culture.

Which are the consequences a teacher should draw?
He has to plan and to structure his own teaching programme in a way, that at least during the first and second class all the seven topics are dealt with. Furthermore the topics should be revised once in the third and fourth class. In addition the teacher is supposed to take into account all the ten professional qualification topics, at least seven of them in two years.
How to cope? That is the teacher's matter.

I explained the programme in this detailed way, because it contains nearly all ideas that you can find more or less emphasized in the other arts education programmes, too.

2 BRANDENBURG

Arts Education Programme for the 'Sekundarstufe 2' (11th to 13th class, 1992)

Characteristic for the 'Sekundarstufe 2', the secondary school, is that the pupils can choose courses, which they attend for half a year.
In the 11th class these courses take place once a week with two lessons. In the 12th and 13th class the number of lessons per subject increases up to three or five lessons a week. But not for all students. Only for those, who have chosen arts education as their personal main subject (alternatives are music, expressive theatre or literature).

Subject to arts education is everything aesthetic, immages, pieces of art and design as well as all the processes, situations and concepts, which are summarized in this four topics:
a creative art
b architecture
c design
d media

These topics are assigned to several subjects, the so-called 'fields of learning' (21 altogether)

A Creative art
1 painting
2 drawing
3 graphic arts
4 sculpture/object
5 photo/video
6 environment/installation
7 acting/performance

B Architecture
8 buildings

9 building concepts/building constructions
10 town- and landscape planning
11 interior design

C Design

12 design of products
13 spatial organization/stage design
14 fashion

D Media

15 script and typography
16 printed products
17 visual signals/information systems
18 advertising
19 photography
20 film
21 television/video

Every subject is stated more precisely by additional explanations:

- for aesthetic phenomena
- c.g. 21 series, clips, video-tapes
- for problems in designing
- position and movement of the camera, mixture of sound and picture, insert editing
- for a plication fields
- computer animation, video-montage, alienation

Because problems in these subjects can and should be looked upon under different aspects, the programme contains a selection of such aspects. These aspects can be compared to the opposite poles in an electric field, where thematic decisions for arts education are made:

- production and reflection
- processes and products
- ambivalence and alternative solutions
- systematic and exemplarity
- historical and present relations up to nowadays
- variety of cultures and regional peculiarities
- individualization and social learning
- inter-disciplinary correlation

The programme lays down to consider several of the aspects in these half-yearly courses, furthermore several subjects of one topic and all four topics have to be considered from the 11th to the 13th class.
This instruction transfers the concept of the programme into the responsibility of every single teacher. The experiences of the pupils should be the fundamental basis

for his planning, because that would enable him to take up questions, which arise from the pupil's situation (e.g. in the family, at work, in leisure-time).

In contrast to this are some existing arts education programmes, especially in the 11th to 13th class, which sometimes do not include the pupil's experiences explicitly. The emphasis of these programmes is on epoches and styles as well as on outstanding pieces of arts. Their principal aim is that the pupils acquire appropriate knowledge, and a creating skill and capability related to this knowledge. In general the southern states of the Federal Republic seem to be more conservative in this respect.

The differences between the states are reduced by the resolutions of the education ministers, who agreed to accept exams from other states according to certain standards which have to be taken into account in the examinations. Three areas of requirements for the assessment of examinations have been identified:

- **Area 1 requirements (reproduction)**
Includes the repitition of facts and the application of practised techniques for designing in a specific area, e.g. the use of known techniques, the description of procedures and facts, with the correct technical terms.

- **Area 2 requirements (reorganization)**
Containes the selection, use and presentation of learned facts, e.g. transfer of known facs to comparable new situations without assistance, the use of techniques to analyze images and pieces of arts, the use of well-known designing methods on new problems.

- **Area 3 requirements (transfer/assessing)**
Includes the use of complex facts with the aim to form an opinion and reach a decision. Examples are the creative designing regard to a certain topic and verification of decisions based on known facts.

The set of questions in the final exam (with or without creative designing) has to be structured in that way, that in all the areas mentioned, knowledge and skills can be demonstrated. In twelve of the sixteen states the teachers design the questions based on the lessons taught. In four states (Bavaria, Baden-Würtemberg, Saxony and Saarland) all students get the same questions in their final exams.

Adequate results in all parts of the examination and in the requirement areas are necessary to rate a student with the grade 'good' (2) or 'very good' (1). A result is 'only average' (4), if nearly half of the expected results are achieved.
This structural setting of questions and the differenciated assessing also influences the structure of oral exams.

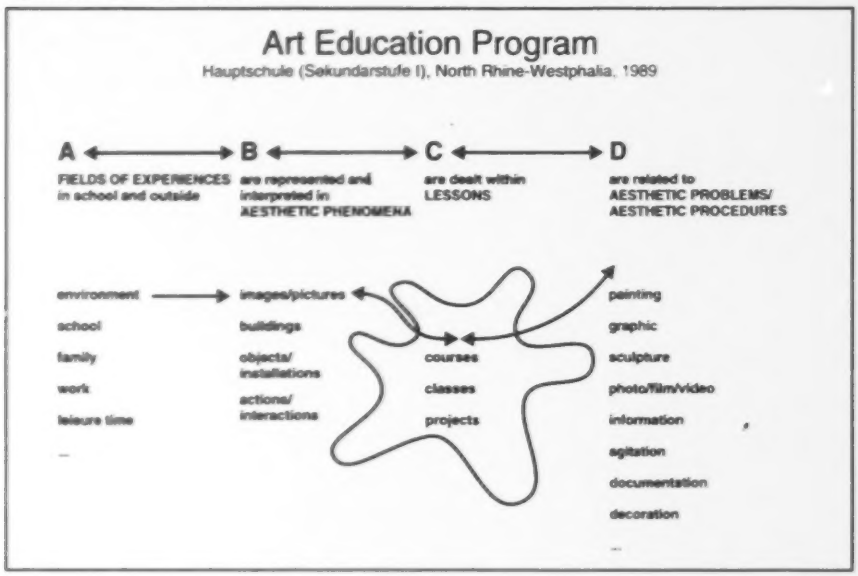
In the Federal Republic of Germany this kind of exams are successfully practised since 1972. These exams also have an impact on the setting of questions and the

assessing of results in the 11th up to the 13th class. In some states even the classes 5 to 10 are influenced in that way.

3 NORTH RHINE-WESTPHALIA

Arts Education Programme for the main school (5th to 10th class, 1989)
As stated in the introduction: programmes are supposed to relate to the world, to entries and processes of learning. In the past arts education programmes often put catalogues of cultural sections into the centre of attention. They explained in detail, which pieces of arts, epoches or styles should be dealt with in the particular classes and schools.

Figure 2. Art Education Programme.



This programme is different on purpose: the programme of North Rhine-Westphalia starts at the fields of experiences but it emphasizes aesthetic approaches, which are characterised by sensorial and phenomenon-related activities. Moreover, it is an interrelation between design and speech.
Besides this the programme stresses the peculiar characteristics of aesthetic learning processes in school education. Instead of demanding the solution of a problem, which is assumed to be correct, one should deal with a variety of solutions by perceiving, discovering and designing actions. That includes the interpretation of aesthetic phenomena.

In North Rhine-Westphalia arts education is described as a sequence of learning situations, which are planned and performed by the teacher and his pupils together. This works, if starting at field of experiences - aesthetic phenomena - related to aesthetic problems and procedures - are taken into consideration in a way, which increases the possibilities of action and realization.

The following diagram shows this view of arts education.

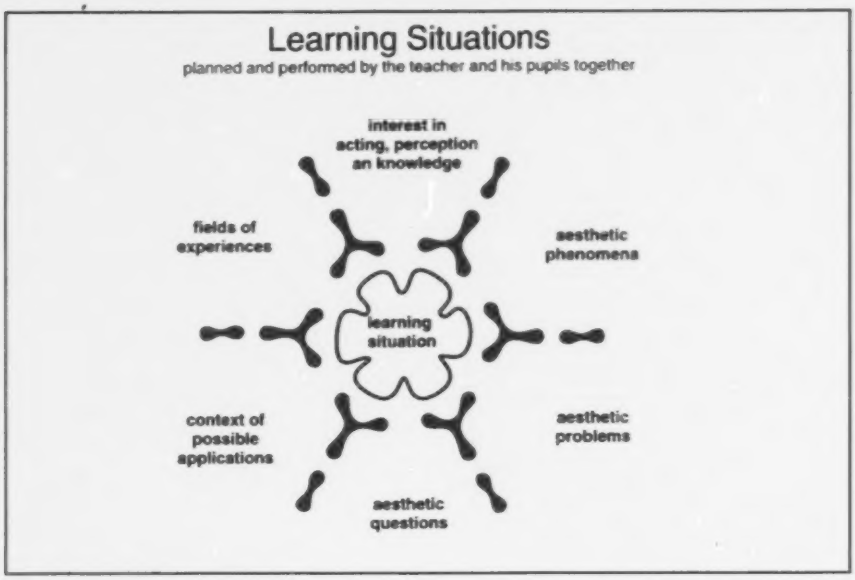


Figure 3. Learning situations.

Fields of experiences
environment, family, work, leisure-time

are represented and interpreted in:

Aesthetic phenomena
pictures/images
buildings
objects/installations
actions/interactions

are dealt with in:

Lessons
courses, classes, projects

are related to:

Aesthetic problems
painting, graphic, sculpture, film, video, photo;

and:
Aesthetic procedures
information, agitation, documentation, decoration.

The teacher is offered another open diagram that may support him in planning and

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giving his lessons. The resulting questions shall prevent the lessons from becoming one-sided and narrow-minded, taking into consideration only the special interest of some of the students.

Fields of experiences
Are, as already mentioned before, the starting point of lesson planning for a school education, which broadens the individual experiences by specific methods.

Interest in acting, perception and knowledge
Under this aspect it is necessary to clarify: what to do, how to do it and to specify the aims.

Aesthetic phenomena
The purpose of orientation is achieved not only by a given structure of a variety of different phenomena, (like pictures/images buildings, objects/installations, actions/interactions), but also by taking into account examples from everyday life.

Aesthetic procedures
They include, apart from the functional procedures which have been described before actions like: drawing, painting, printing, sculpture, photography, making films and collages, playing, building but also collecting, exhibiting and interpreting.

Aesthetic questions
This key word leads the attention to the way how something is made perceivable or even changeable by the selection of material and colours, composition and spatial organization.

Context of possible applications
This context is at least of a double interest
- referring to the school: things which are realized and/or produced during the lessons can from time to time be made public in school. Additionally the results of the school should be published;
- referring to a phenomenon: because, images, statues, inscenations and installations are used, e.g. for the purpose of worshipping, celebrating. confirming, advertising and striving for agreement.

By several examples (3 multiplied by 4) for the classes 5/6, 7/8 and 9/10 it is shown, how the open diagram could be put into action. Furthermore there are two detailed suggestions how to make use of material for the topics 'people' and 'landscape'.

To describe this programme one can say: it lines out arts education as an aesthetic education in the visual field. This, at the same time is the main interest of the German arts education. Most of the new arts education programmes are characterized by this guideline. In addition it leads arts education to check the old programmes.
This is, what my next (and last) example is about.

4 SCHLESWIG-HOLSTEIN

Programme revision (since 1992, classes up to the 10th class)
The initiative has come from the state government and concerns all subjects and schools up to the 10th class. The government focuses on key problems of our time. The main challenge for the individual and for society as a whole, nowadays and in the future, are summarized in the five following key problems:

- the basic values of human living together, in particular peace, the human rights and the living together in this world;
- the preservation of the natural basis of life,of one's health and that of others;
- the future changes of economical, technical and social conditions and the resulting consequences for life conditions;
- the equal oppurtunities for women and men, girls and boys in family, occupation/profession and society;
- everybody's right to determine his or her political, cultural and economical conditions in life, their co-operation and joint responsibility in all parts of life.

Since 1992 ten specialized commissions work at this problem for the primary school, 27 commissions for the classes 5 to 10 (the number of 27 makes clear, that hence 26 other subjects are in competition with arts education). All in all there are about 400 persons involved: teachers, university teachers and for the first time some parents and pupils.
These commissions are supposed to describe the contributions of their subjects for the solution of the main problems. In addition there is the order to specify, which 'key qualifications' are going to be imparted. An important aim is to tune these statements in a way that makes coherent learning possible.

The results of the commissions are not published so far. But it is possible to state how the art teachers have reacted in a first access to the 'programme revision'. First of all they point out, that arts education naturally contributes to the solution of all the five main problems. Moreover they mention specific key qualifications, namely:
- to experience environment and oneself emotionally (experimental ability)
- to perceive oneself and the environment in a complex way (perceptable ability)
- to deal with designing in a creative way (creativity)
- to work together (co-operative ability)
- to acquire specific knowledge and competence (knowledge of facts)
- to communicate in an adequate way (communicationable ability)
- to judge aesthetical facts and problems (ability of judging)

It is not explained, however, how the basic training that is supposed to lead to these qualifications, is going to look like, and how the qualifications could be different according to the different levels of age. Up to now this problem has not been solved satisfactorily.

However, there have been discussions about key qualifications in Germany for

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years. As early as in the mid-seventies it became clear in several fields, that we have to cope with a more and more uncertain future. At the same time, facing the increasing social change and technical development, flexibility has to be gained. This flexibility is really needed, if you consider the anticipation of an uncertain future and the increasing confusion of modern society.

As it gets more and more difficult to predict future vocational qualifications, the discussion about key qualifications is pressed ahead.
Then and now one began to consider that the knowledge, ability and skills which are discussed, should not only be applied to certain tasks and restricted situations, but for a great number of positions and functions in occupational life, and to manage a sequence of non-predictable demands in the course of life.

The process of rationalization in economics leaves especially ambitious professions for a small elite, for which the following qualifications are generally required:
- logical, analytical, critical, conceptional and contextual thinking
- co-operative procedures
- creativity
- autonomous ability of learning and transmission
- ability of solving problems and making decisions
- social interaction with foreign cultures (since 1988)
- dealing with disturbances (since 1988)

In any case rather abstract educational aims, partly key words.

Until today key qualifications, if they could be gained at all, are demanded without any consideration of individuals and their personal history and in dealing with any kind of examples or content. Whoever gets involved pedagogically with key qualifications, has to think about the four following points:
1 how to transform keywords into aims which can be achieved in lessons, at least partly?
2 which are the examples and methods that could be used to strive for these aims?
3 what is the personal history and qualification of the participants?
4 which chances are offered by the situations and surroundings in lessons, to come from the situative approach of learning to more general results, to possibilities of transfer and to more autonomous abilities in learning, communication and interaction?

The last point shows the actual requirements (and the possibly excessive demands) which are connected to the key qualifications. First of all, a high level of abstraction and the willingness to change previous schemes of working is required. A possible field of experience and training for this is art in general, especially the international art of avant-garde. But the art of avant-garde develops far away from the everyday life of pupils and classrooms and often far away even from the art teachers.

Let me summarize the main points of my lecture:
There are many arts education programmes in Germany and it is very difficult to describe their outcome, as there is no research in this field. In Germany there is at least an administrative (perhaps general) suspicion against the competitiveness of arts education programmes.
Actually, the administration does not have any facts but only this suspicion - which leads to restrictions of arts education and perhaps to its disappearance from general education.

The question is, if and how this suspicion could be removed - which is not possible only by developing programmes. We no longer can only maintain the necessity of aesthetic education, but we have to make it plausible too.

Unfortunately we have to face the fact, that the modernization of work, perhaps even the modernization of schools (in favour of work) will take place faster than the modernization of arts education.

Konrad Jentzsch

Konrad Jentzsch, born 1939, Art and Werkpädagogikstudium (Staatliche Hochschule für Bildende Kunst) also Germanistikstudium (Technische Universität) Berlin.
Seven years art-teacher at the Gymnasium in Wolfsburg and Hannover, 1971-1975. President of the Bund Deutscher Kunsterzieher (Association of German Arts Educationalists), 1972 Head of Discipline at the State Study Institute Hannover (Secondary Teacher Training - Phase 2 -), 1975 Professor of Arts at the Pädagogischen Hochschule Niedersachsen, Division Göttingen, from 1978 Universität Göttingen; since 1985 Professor für Kunstpädagogik at the Hochschule für Bildende Künste Braunschweig. Since 1971 he is in charge of editing das *Fachzeitschrift des Bundes Deutscher Kunsterzieher (BDK-Mitteilungen)* (the Specialist Journal of German Arts Educationalists).

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17 JOHN STEERS

Final Comments

It seemed to me that every speaker commenced their presentation by claiming that they had been given the worst slot in the programme and, consequently, everything that they wanted to say had been said better by others. Obviously Michael Parsons couldn't do that because he started the conference! - but everybody else did and then, I noticed, they followed this explanation with a joke.

Well, let me tell you it's no joke at all to be standing here at this point in the conference, trying to draw some conclusions, trying to think of something vaguely original and intelligent to say. (Especially as Norman Freeman made me realize this morning that I might just have reattained a mental age of about twelve years.)

Also, I'm not quite sure how I'm suppposed to do this. I think I was confused when I saw that we are assembled in the 'Oscar Room' - you know the Oscars were awarded yesterday in Hollywood and I wondered if my role here was to suggest awards: 'The nominations for the best foreign presentation are...', 'The award for the best supporting philosopher...', 'The best technical presentation ...'
I was a bit disappointed this morning because there were two British films up for the best film award and neither of them won it. One was called *The Madness of King George III*. Allegedly they had to change the title to *The Madness of King George* because they thought if they called it *The Madness of King George III* no one would go to it in North America because they would think that they had missed *The Madness of King George I* and *The Madness of King George II*.

I would like to preface my comments, not conclusions, by thanking the organizers, perhaps on your behalf as well as my own account, for a fascinating, rewarding and very enjoyable two days. I do not underestimate the enormous amount of hard work and energy that it takes to mount an international event like this, and especially one that appears to have proceeded without a hitch. So, thank you to LOKV and particularly to Jan de Grauw and his team, to the director Baukje Vellekoop and to the theme organizers Marjo van Hoorn, Folkert Haanstra, Jacob Oostwoud Wijdenes, Dick van Zuilen and Ad Dudink. Thank you all very much indeed.

Let me place these personal observations in some sort of context. First the conference sessions each afternoon have offered an à-la-carte menu. I did not have the privilege of seeing the papers in advance of the conference so, like you, I made my choices but not without wondering whether what was on somebody else's plate

was more interesting than that which was on mine. The point that I am making is that the conference I attended here in Rotterdam might not be exactly the same conference as the one you attended. I may have gone to different sessions and, moreover, I've scarcely had an opportunity to digest quite a lot of what I've heard in the course of today: it will take some time to assimilate. And another matter to be taken into account is that we all come here with a great deal of art education baggage which we have acquired from our own experience and descriptions of the practices of others inevitably are too often clouded by our own preconceptions. So all I can do is offer a few more or less random thoughts, based mainly on my British experience - or you might prefer to say, my British prejudices.

I was grateful to Michael Parsons for his clear explanation of the complex interaction between the aesthetic and other contexts, for example the social, ecological, economic and political, all of which are required in order to interpret much contemporary work in the arts. For me it provided a convincing account of why the critical and contextual domain in British art education seems to have taken such a firm hold in the classroom in the past decade, and why it has tended to replace a more traditional approach to teaching art history. Furthermore, Michael provided a rationale for why we increasingly value in our assessment systems evidence of integrated visual and verbal thinking and why an approach that encourages students to re-interpret the work of others through their own art-making can so often become a liberating educational experience. It reminded me of work, which I have to say is still comparatively rare in the British public examination system, where the student is inspired and takes as the starting point a thorough consideration of contemporary social or political issues, or maybe the ideas and working methods of contemporary artists, and which in turn seem to produce work that is very different in its intensity, form and content from the prevailing orthodoxy. Students seem to possess a much greater ownership of that kind of work. Again the need and the ability to entertain more than one meaningful interpretation of work and to allow multiple points of view to co-exist presents some interesting problems for some traditional forms of assessment.

Bert Mulder's intermezzo on art education and technology was intriguing and especially thought provoking in his use of the phrase 'multimedia provides a powerful canvas for art education'. Nevertheless I have to confess the thought did cross my mind, as we were bombarded with contextual information to the sound of Dvorák's Symphony *From the New World*, that wasn't this just a bit like Michael Parson's opening photograph? Were we seeing a digital development of the traditional gallery label and were we being invited to read this label rather than listen to the work?

The four presentations on aspects of assessment, starting with Ron McGregor, offered me plenty of food for thought. I think that my approach to assessment now starts with the following questions:

- Why is the assessment needed?
- Who's intended to benefit from it?

- Who wants to know?
- And why?

I think that various answers to these questions were given by each of the speakers and they might be summarized as feed-back and motivation for the student, feedback and motivation for the teacher - essentially formative assessment; and summative assessment for the purposes of 'gate keeping', to attest the mastery of certain skills or to act as a hurdle for progression to employment or to a higher level of education. Then there is the temperature taking function, perhaps typified by Donna Kay Beattie's account of the NEAP tests being developed in the USA and which are intended to sample and monitor local or national standards. All these aspects of assessment seem to be primarily concerned with assessment of achievement rather than - and I think it's an important distinction to make - with assessment of ability, which is much more problematic. I guess most teachers can live fairly happily with all of these functions, although most will be tend to be more comfortable with formative assessment. But none of the speakers spoke of assessment used to control the curriculum and to control teachers. This is a very potent function of assessment and one to which we need to be particularly alert at a time when many governments seem to favour, and Ken Robinson referred to a quasi-industrial model of education where, through the use of performance indicators and attainment targets, input and output levels are measured and conclusions are drawn about the efficacy of the system. In my view, in any assessment system issues of validity, reliability and utility are in inevitable tension. They are rarely, if ever, to be found in equilibrium and, in the context of widespread assessment in schools, particular attention is usually paid to utility. Assessment systems have to be above all manageable in a context where teachers might typically expect to see class after class of thirty or so students for an hour at a time. The reality of the classroom situation places concepts such as negotiated assessment into very sharp focus indeed, and the manageability of such approaches often becomes highly questionable.

Several speakers, including Peter Hermans, suggested that, on the whole, art education has been improved by the introduction of public examinations and that teaching has also improved. I share that view but I do not think that it's the whole story. For example, in Britain the examinations that nearly a quarter of a million pupils take in art and design every year at age 16+, we have seen a shift in the number of students achieving grades A to C system move from around 38 per cent a few years ago to 56 per cent last year. On the evidence of the work that I've seen I don't believe that that increase in the number achieving those grades is a consequence of lower standards. I think pupils are better motivated - it is more clear what the expectations are, they know where they are going with their work, they know what they need to achieve and they go for it. One of the consequences of this has been that the number of students both seeking and gaining places in higher education art and design has doubled in the past decade and I think that that is largely due to a change in the way that art and design teaching is delivered in the secondary schools. However, there is also a downside to it, which perhaps

isn't inevitable and perhaps isn't solely due to the demands of examinations or national curricula, but there is a danger of an ever-increasing orthodoxy as students and teachers alike become better and better at anticipating what examiners reward well.

There again, there are very big differences that I think we need to bear in mind and distinctions that have to be made very clearly when we begin to compare different assessment systems. To take one example, Donna Kay Beattie talked about the NAEP tests which are administered in one hour. It is difficult to make any real comparison with our 18+ examinations in England where, on one level, they take fifteen hours to complete. But, from another way of looking at them they take about two and a half months; and since there is a very large element of continuous assessment through assessment of the process portfolio or 'coursework', you could equally say that the assessment takes two years. These are just some of the important distinctions which I think have to be made when we start looking at both the different functions and purposes of assessment, and when we try to make international comparisons.

I shall treasure for a long time Norman Freeman's quote from a child, 'a picture is only someone's mind put on paper'. Norman Freeman led me to conclude that we should take much more note of recent and relevant research in associated fields and that message has been reinforced this afternoon in the context of discussion of new curricula and assessment instruments. If such research challenges some of our more cherished assumptions, so be it. What a change it would be, at least in Britain, if major education initiatives were informed by research and evidence such as that Norman Freeman or Harry Ganzeboom described.

Denny Palmer Wolfe spoke of the importance of collaborative work in the arts for generating a different kind of learning experience, for example, to individual assignments and she emphasized that in turn this requires a different approach to assessment, particularly in terms of programme evaluation. Maybe it should also have implications for approaches to monitoring national standards?

Harry Ganzeboom questioned the effects of art education in schools on later adult participation in the arts and how the relative influence of home and school might possibly vary at different ages and between different art forms. He asked questions such as 'Does arts education increase "life chances" later on?'; 'Does it help to develop adult social and cultural networks?' Might a strong commitment to arts education limit some of the fields in which a student might later need to operate, such as the commercial world? Harry Ganzeboom's research both confronts and supports some of our comfortable well-worn assertions about the value of arts education. We should feel challenged by any conclusions, however tentative, that suggest that home influences may be three times as significant as that of schools and that participation in the arts at school hardly affects at all participation in cultural activities later in life. (However, I might suggest that maybe the evidence to which I've just referred, about the developments of the British examination system,

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at least begin to raise some doubts about this conclusion in my own mind.)

Ken Robinson also spoke of the importance of recent collaboration between artists and educators in breaking down artificially imposed barriers between the arts, however these might be defined. Thus clear parallels emerged with Michael Parson's comments about the arts in what I think he called a post, postmodern world, and the potentially liberating effects of programmes such as those described by Denny Palmer Wolfe. Ken Robinson also talked of the need for cross-disciplinary evidence to support curriculum and assessment developments needed to break what he called the 'cycle of constraint'.

I confess to feeling just a little envious of Konrad Jentzsch and his view that in Germany there are as many art curricula as there are art teachers. It sounds to me like the perfect state of affairs having suffered national curricula developments for the past ten years!

In conclusion, I think the real value of a conference such as this isn't that it enables us to refine our ideas towards a single view of the aims and objectives of arts education, but rather it gives us the chance to compare and contrast, and test our approaches against multiple visions of the subject. I believe we need to cherish this diversity, both at the national and international level. Any such enthusiasm as I once had for devising monolithic national curricula and assessment procedures has long since evaporated. I would now favour a variety of well-structured and well-argued guidelines for teachers to adapt or to adopt as they see fit - rather as Konrad Jentzsch described the present situation in Germany.

The whole business of defining standards or criteria, programmes of study or national curricula can all be described, I think, as attempts to nail the jelly to the wall. (I understand you have a rather less decorous phrase in the Netherlands which means much the same thing.) It is very easy to tire of these crisp, committee-drafted sound bites of arts education wisdom, although I've been as guilty as anybody of spending countless hours in working parties charged with such tasks. So, just for a change, I thought I might try and end by offering you a personal view of some possible outcomes of art education without any attempt to dissect these for assessment purposes. By contrast with the all too familiar 'legalese', probably the most significant thing is that it becomes possible to include references to some of those more ephemeral and elusive qualities that prove so difficult in the assessment context or in statutory Orders.

Of course my view is coloured by my own experience and this is rooted in the fairly distinctive British view of visual arts education which embraces a range of activity through the fine arts to craft, design and technology. So I might say that experience of art and design is a crucial element in a liberal, broad and relevant curriculum. (Here, of course, you immediately have to answer the question to your satisfaction 'relevant to whom'?) I believe that the subject of art and design provides students with a means of investigating and increasing their understanding of both the

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physical world and the world of imagination. The study of relevant theory about art and design together with direct participation in practical problem solving activities affords the individual the opportunity of heightening his or her visual and intellectual awareness. It develops students' abilities to observe, to select and to interpret images and visual forms and to utilise imagination and feeling in critical response, discussion and understanding. The search for suitable techniques and expressive forms and the application of media and appropriate technologies which is central to art and design practice encourages experimentation and increased inventiveness. And in particular it can be argued that design awareness offers a key to understanding why the made environment and artefacts are the way they are. Design experience affords insights into how the future might be shaped. And art and design studies educate the individual to make judgments. Judgments about degrees of utility or quality for example. They encourage the development to make well-informed critical appraisals of humankind's cultural heritage and in made and natural environment. And, perhaps not the least, art and design education should provide a particular kind of pleasure and an interest which lasts throughout life.

It would be good, wouldn't it - as several speakers have said - if we had some solid research to support this rhetoric? I think that needs to be our agenda: I hope you have as much to think about over the next few days and weeks as I have.

John Steers

John Steers was appointed General Secretary of the principal British art teachers' organisation, NSEA (now the National Society for Education in Art and Design), in 1981 after fourteen years teaching in secondary schools. He is the 1993-1996 President of the International Society for Education through Art (INSEA) and has served on its executive committee in various capacities since 1983. His particular involvement in art and design assessment includes having served on the Art Committee and Technology Committee of the School Examinations and Assessment Committee and, more recently as a consultant to the School Curriculum and Assessment Authority. He currently serves on the National Council for Vocational Qualifications (NCVQ) Art and Design Advisory Committee. He is a trustee of the Art and Design Admissions Registry and of the National Arts Education Archive, Bretton Hall. He was awarded his doctorate by Liverpool University in 1994 for a study of the development of art and design in the national curriculum for England and Wales.

COLOPHON

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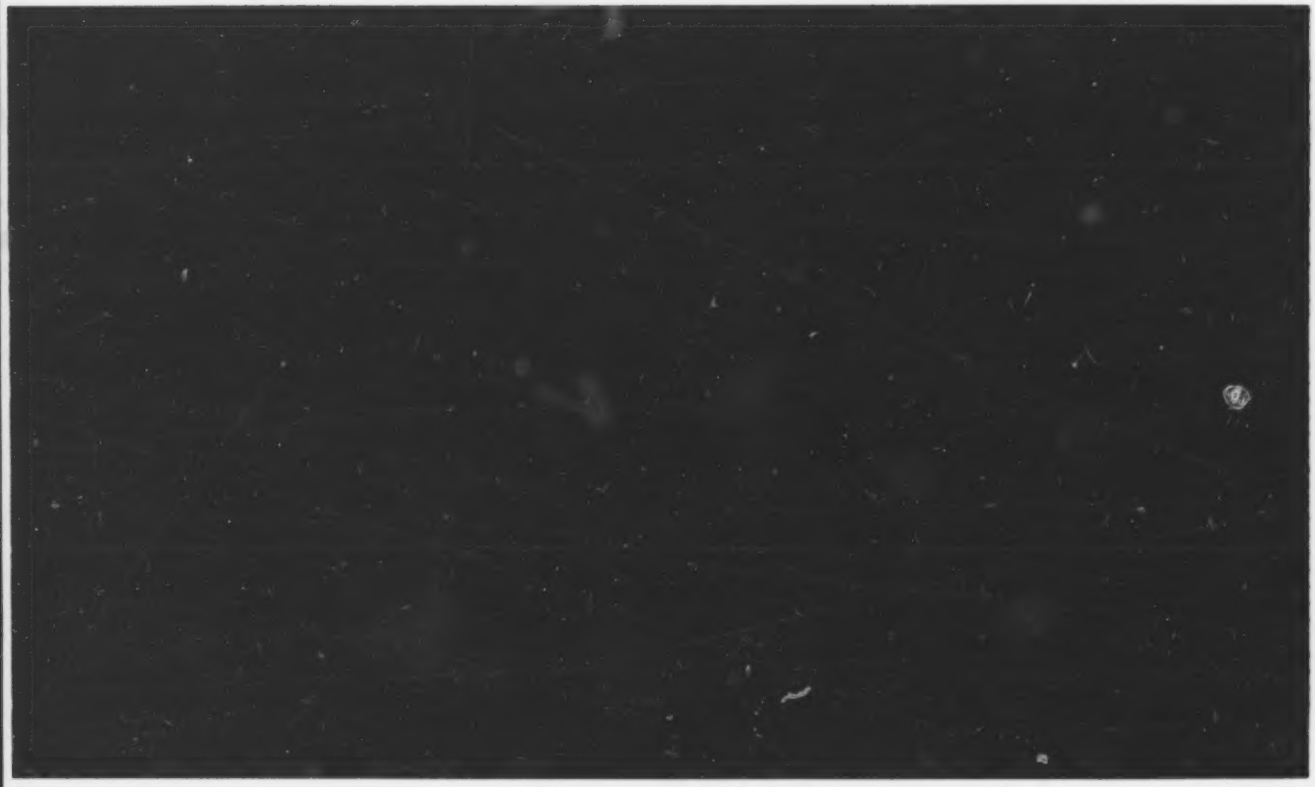
LOKV, Netherlands Institute for Arts Education
Ganzenmarkt 6
P.O. Box 805
3500 AV Utrecht
The Netherlands
Telephone +31.30.233 23 28
Fax +31.30.233 40 18



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